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OR

MISCELLANEOUS TRACTS

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CI. 1. SS. Constantine and Helena; three saints; 41 A, 41. 2. Betrayal; Via Crucis; Nativity; Presentation; 46 D, 46 C, 45 D, 45 C. Below: VIII . . . . facing 342
CII. 1. Annunciation; Solomon; David; VII. Behind: 28 A. 2. Ascension; Virgin and Archangels; 47, 48 . . . facing 343

I.—*A Picture-book of the life of St. Anthony the Abbot, executed for the monastery of Saint-Antoine de Viennois in 1426.*

By Miss Rose Graham, *M.A., D.Litt., F.S.A.*

Read 16th February 1933

On 14th April 1426 a large manuscript illustrating the life and miracles of St. Anthony the Abbot in two hundred pictures was completed for the abbey of Saint-Antoine de Viennois in Dauphiné, the head house of the Order of Hospitallers of St. Anthony. The Order was suppressed in 1775, when it was absorbed into the Order of Knights Hospitallers of St. John of Jerusalem,[1] and in 1781 this manuscript was sent to the head house in Malta; it is now in the public library at Valletta and was brought to light in 1907 by the present learned librarian Mr. Hannibal P. Scicluna. I owe my knowledge of the existence of this manuscript to Mr. S. C. Cockerell[2] who saw it at Valletta for the first time in 1926, and it was on his initiative that it was sent to the British Museum on loan, with permission to exhibit it at a meeting of this Society. We are greatly indebted to Mr. Cockerell, Sir John Shuckburgh of the Colonial Office, to the Governor-General of Malta, the Minister of Public Instruction, and above all to Dr. Scicluna on whose recommendation the loan was made for study and photography. The whole manuscript will be reproduced for the Roxburghe Club, and the privilege of editing it has been given to me.

Saint-Antoine de Viennois and St. Anthony the Abbot of Egypt

The abbey of Saint-Antoine de Viennois (dép. Isère), so called because it was in the ecclesiastical province of the Archbishop of Vienne, is situated among the foothills of the mountains of Dauphiné, eight miles by road west of Saint-Marcellin, which is on the branch railway between Grenoble and Valence.[3] It was famed in the middle ages for the possession of the relics of St. Anthony the Abbot.

St. Anthony was born in the city of Coma in Upper Egypt about 250. When he was twenty, on an occasion when the gospel story of the rich young man was read in church, he heard Christ's words: 'If thou wouldest be perfect, go, sell that thou hast, and give to the poor', as a call to himself; he sold his possessions and went to live among the ascetics of his native place. After fifteen years he went into complete solitude in a deserted fort at Pispir on the east bank of the Nile, opposite the Fayum. There he spent twenty years in strict seclusion, wholly given to prayer and religious exercises. A number of disciples were attracted to Pispir, called the Outer Mountain, and sought Anthony for their teacher, so he came out of his seclusion to found and organize Christian monasticism. Afterwards he withdrew to a hermitage near the shore of the Red Sea, called the Inner Mountain, and there he died at the reputed age of a hundred and five.[1] Two of his disciples buried him, as he wished, in an unknown grave. According to the contemporary evidence of Victor of Tunis the body was found in 561,[2] translated with great honour to Alexandria, and placed in the church of St. John the Baptist. A fifteenth-century manuscript, with some confusion of dates, tells the story that it was translated to Constantinople immediately after passing through Alexandria.[3] According to another story Geilin II, a count of Dauphiné, found the relics of St. Anthony in a deserted church in a suburb of Constantinople at some time late in the eleventh century and prevailed on the Emperor to give them to him. He brought them home to his castle of La Motte-au-bois in Dauphiné and placed them in the parish church of La Motte which then received the name of Saint-Antoine.[4] The church of Saint-Antoine and four neighbouring churches were granted in 1083 to the Benedictine abbey of Montmajour near Arles, and the abbot and convent sent monks to found a dependent priory at Saint-Antoine de Viennois.[5]

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[1] H. Dijon, *L'Église Abbatiale de Saint-Antoine en Dauphiné*, p. 220 (1902).

[2] S. C. Cockerell, 'Two pictorial lives of St. Anthony the Great,' *Burlington Magazine*, February 1933, pp. 59-66, pls. I-IV.

[3] R. Graham, 'The Order of Saint-Antoine de Viennois and its English Commandery, St. Anthony's, Threadneedle Street', *Archaeological Journal*, vol. lxxxiv, pp. 341-406 (1927). I have repeated several sentences by permission of the Editor.

The Order of Hospitallers of Saint-Antoine de Viennois

A few years after the arrival of the Benedictines, Saint-Antoine was a famous place of pilgrimage, particularly for sufferers from a dreadful disease, called in the middle ages St. Anthony's fire on account of the cures at Saint-Antoine; it caused gangrene and the victim might lose a hand or a foot. The modern name is ergotism, and the disease is due to the mixture in rye of grains which have been poisoned by a parasite known as 'Claviceps purpurea'.[6]

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[1] Migne, *Patrologia Latina*, vol. lxxiii, pp. 125–70; *Lausiac History of Palladius*, ed. E. C. Butler, vol. i, p. xlviii, map of Monastic Egypt, *circa* 400; vol. ii, pp. 199–201 (*Texts and Studies*, ed. J. Armitage Robinson, 1898).

[2] Migne, *Patrologia Latina*, vol. lxxxviii, p. 961; cf. St. Athanasius, *Select Works and Letters*, ed. A. Robertson, p. 220, note 6*a*.

[3] *Analecta Bollandiana*, II. 341–54, from a fifteenth-century manuscript at Namur.

[4] L. Maillet-Guy, *Les Origines de Saint-Antoine*, pp. 16–18.

[5] *Ibid.*, pp. 28–34.

[6] R. Graham, 'The Order of Saint-Antoine de Viennois and its English Commandery, St. Anthony's, Threadneedle Street', *Archaeological Journal*, vol. lxxxiv (1927), p. 343, note 2.

About 1100 the Order of Hospitallers of Saint-Antoine was founded by Gaston, a lord of Dauphiné, and his son Guérin to lodge the pilgrims and to maintain a hospital for incurables.[1] In the twelfth and thirteenth centuries many houses of the Order of Saint-Antoine were founded in the principal Christian countries of Europe; there were houses also at Constantinople, at Acre, and in Cyprus. The English house was founded by Henry III in 1243 in the city of London, and was afterwards known as St. Anthony's, Threadneedle Street.

The Order of Saint-Antoine consisted of clerks, lay brothers, and sisters under the rule of a grand master elected by the clerks. Friction was frequent at Saint-Antoine in the thirteenth century between the Benedictine monks from Montmajour and the Hospitallers. In 1289 the grand master induced the abbot of Montmajour to seal an agreement investing him with the Benedictine priory, but the abbot revoked it shortly afterwards. The grand master resented his action and gave orders to expel the Benedictines from the priory; in the silence of the night men scaled the priory walls with ladders, put out the monks, and took possession in the name of the grand master. In 1297 Pope Boniface VIII recognized the seizure of the Benedictine priory by the Hospitallers. He converted the Hospitallers into an Order of Augustinian Canons, raised the priory to the status of an abbey to be served by thirty canons, and exempted the mother house and all its dependent commanderies from episcopal jurisdiction. In compensation for the loss of the priory of Saint-Antoine, Boniface VIII awarded a fixed yearly payment to the abbot and convent of Montmajour from the Hospitallers, but in later years fresh difficulties arose out of this award on account of the fall in the value of money and complications in the exchange of currency. The Hospitallers continued the building of the church begun by the Benedictines, and in English episcopal registers there are many records of licences to collectors sent out from St. Anthony's in the city of London to raise money for the completion of the choir and nave of Saint-Antoine.

The Picture-book of St. Anthony; the Valletta manuscript

The colophon on fol. cii of the Valletta manuscript is as follows:—

> In presenti libro continentur figuraliter sub brevibus vita et acta sanctissimi Antonii abbatis et heremite patroni nostri videlicet a nativitate usque ad mortem seu ad ultimam sepulturam ejusdem et ultra prout jacent in quodam magno panno lineo quem compilavit et extraxit de legendis et vita ejusdem sancti frater Johannes Marcellarii quondam sacrista hujus monasterii sancti Antonii Viennensis. Quem depingi et describi fecit Guigo Roberti de Tollino tunc prior claustralis dicti monasterii et preceptor sancte

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[1] *Ibid.*, p. 343.

Crucis et donavit ecclesie dicti monasterii sub pacto quod nunquam extrahatur de ecclesia. Orate pro eis si placet. Anime ipsorum et anime omnium fidelium defunctorum per misericordiam dei requiescant in pace. Amen. Et fuit completus die xiiij mensis aprilis anno domini millesimo ccccxxvi. Magister Robinus Fornerii de Avinione pingit (*sic*). Et Petrus Petri de Istrio scripsit.

The details given in this colophon are most unusual and very valuable. It informs us that there was at Saint-Antoine a great linen cloth on which the life and acts of St. Anthony were depicted, from his birth to his death or to his last burial and beyond. This painted cloth would be hung about the church on high festivals and notably on the feast of St. Anthony (17 January) and of the Ascension, when the general chapter of the Order met at Saint-Antoine, and the shrine of St. Anthony was carried in an outdoor procession as it is still in the twentieth century. St. Anthony's, Threadneedle Street, possessed, according to an inventory of 1499,[1] 'ij stenyd (i.e. painted) clothys to hange abowte the churche, on of the lyffe of Seynt Antonye. And a nother of the Invencion', the second probably depicting the story of the finding of the unknown grave in Egypt by the patriarch Theophilus and the removal of the saint's body to Constantinople.

We also learn that the prior, Guigue Robert,[2] who took his name de Tollino from the little town of Tullins a few miles from Saint-Antoine, had the book painted and written. His office of grand or claustral prior, which he held from 1405 to 1430, was endowed with the revenues of the commandery of Sainte-Croix (dép. Drôme). He presented the book to the monastery with the condition that it should never be taken out of the church. A manuscript containing the pictures on the painted linen cloth could be more easily shown to distinguished guests than the pannus itself, and the usual place for treasures was the sacristy. Picture-books of the lives and miracles of famous saints had long been painted for abbeys and other churches in which their relics were honoured, St. Radegund for the nunnery at Poitiers, St. Aubin for the monastery at Angers, St. Denis for the royal abbey outside Paris, St. Omer and St. Quentin for the collegiate churches of those towns.[3] Picture-books were painted of St. Alban,[4] St. Cuthbert, St. Edmund the King, St. Edward the Confessor, and St. Thomas of Canterbury for English patrons.[5] The book of

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[1] *Archaeological Journal*, vol. lxxxiv, p. 398.

[2] L. Maillet-Guy, *Les Grands Prieurs de Saint-Antoine*, p. 13.

[3] E. Mâle, *L'Art religieux du XII*e *siècle en France*, pp. 228–30; the book of St. Denis has been reproduced, *Légende de Saint-Denis*, ed. H. Martin (*Société de l'Histoire de Paris et de l'Île de France*, 1908).

[4] Reproduced in full, ed. W. R. L. Lowe, E. F. Jacob, and M. R. James (1924).

[5] St. Cuthbert: i, University College, Oxford; ii, British Museum MS. Add. 39943; St. Edward the Confessor: Cambridge University Library, *Roxburghe Club*.

St. Anthony the Abbot with two hundred pictures is the largest of all of them.

The picture-book of St. Anthony exists in duplicate in the Laurentian Library at Florence among the manuscripts collected by the Medici.[1] The colophon is shorter and undated:—

> 'In presenti libro continentur figuraliter sub brevibus vita et acta sanctissimi Antonii abbatis et heremite patroni nostri videlicet a nativitate usque ad mortem seu ad ultimam sepulturam ejusdem et ultra prout jacent in quodam magno panno lineo quem compilavit et extraxit de legendis et vita ejusdem sancti frater Johannes Marcellarii quondam sacrista hujus monasterii sancti Antonii Viennensis. Quem depingi et describi fecit venerabilis dominus et religiosus vir frater Johannes de Monte Canuto cellerarius dicti monasterii et preceptor Ranversi', with these concluding words in a different hand, 'pro dando sanctissimo ac beatissimo domino nostro pape Eugenio quarto'.

The brother who paid for this book was Jean de Montchenu. The Montchenus were one of the oldest and most distinguished families of Dauphiné; Jean's brother Falque became abbot of Saint-Antoine in 1418, and, when Falque died in the next year, Jean was elected by some of the canons, and is described on 9th June 1420 as abbot-elect, but the election was contested and Martin V nominated Arthaud de Grandval (obiit 1427) whom he knew personally.[2] Jean de Montchenu was preceptor of the commandery of the Order at Chambéry (dép. Savoie) in 1429; there can be little doubt that shortly afterwards Abbot Jean de Polley promoted him to be cellarer at Saint-Antoine, an office which he held certainly from 1431 until 1455.[3] The office of cellarer had been endowed since 1323[4] with the revenues of the commandery of Ranvers, or Ranverso in Piedmont 2½ miles from Avigliana in the Val di Susa.[5] Jean de Montchenu was nominated in 1432 as one of the representatives of the Order of Saint-Antoine at the Council of Basle which held sessions from 1431 until 1444.[6] The copy of the picture-book for which he paid could not have been executed until 1429 or later, but it was probably ready in 1432 if not sooner. The question of a reason for presenting the book to Pope Eugenius IV is interesting. The Pope was elected on 3rd March 1431; an ineffective decree of deposition was passed at the Council of Basle in 1439, but he died as pope in Rome in 1447. The abbot and canons of Saint-Antoine were personally interested in the proceedings of the Council, and a commission sat for four years to hear the case of the abbot of Montmajour who was aggrieved that the pension due from Saint-Antoine under the award of Boniface VIII had been reduced by Popes Martin V and Eugenius IV to thirteen hundred gold florins of the papal exchequer.[1] On 22nd May 1434 the proctor of Saint-Antoine deposited thirteen hundred gold florins with Matthew of Spain, merchant and burgess of Geneva, as payment for the current year, and after further haggling with the new abbot of Montmajour, who was passing through Geneva on his way to Basle and claimed arrears for seven years, the money was transferred two days later, on 24th May, to the Florentine banker, Roger Louis of Geneva, the representative of the firm of Cosimo and Lorenzo de' Medici, and remained in a suspense account for a year.[2] I venture to suggest that the proctor of Saint-Antoine brought with him to Geneva the picture-book executed for Jean de Montchenu, who since 1432 was one of the representatives of the Order of Saint-Antoine at Basle; that the picture-book was a gift to keep the favour of Pope Eugenius IV, and it was handed to the agent of the Medici, Roger Louis of Geneva. Eugenius IV escaped from Rome on 4th June 1434, was honourably received by the Florentines on 23rd June and took up his abode in the monastery of Santa Maria Novella where he remained until 18th April 1436.[3] The pope was a singularly uncultivated Franciscan friar, and as he was in straits for money, he probably sold the picture-book to the art-loving Medici who were his bankers, and so it came to be one of the treasures of their library. It is a curious coincidence that a long poem on the life of St. Anthony was dedicated to Pope Eugenius IV by Maffeo Vegio who entered the service of the papal chancery in 1433.[4]

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[1] MS. Laur., Med. Pal., 143.

[2] L. Maillet-Guy, 'Jean de Montchenu', *Bulletin de la Société d'archéologie de la Drôme*, 1905, pp. 185–90.

[3] *Ibid.*, p. 190; cf. L. Maillet-Guy, *Saint-Antoine et Montmajour au Concile de Bâle, 1434–8*, pp. 20, 21, note 2 (2).

[4] *Bulletin de la Société d'archéologie de la Drôme*, 1905, p. 190.

[5] *Touring Club Italiano, Piemonte*, vol. i, pp. 122–5, and plate. I am indebted to Miss E. M. Jamison for this reference.

[6] L. Maillet-Guy, *Saint-Antoine et Montmajour*, p. 21, note 2 (2).

The Sources of the Picture-book

In the colophon of both manuscripts we are told that brother Jean Marcellarii, formerly sacrist of the monastery, compiled the story depicted on the great linen cloth and in the books, and that he extracted it from the life and stories of the saint. The name of Jean Marcellarii is spelt Macellard or Macellarii in several documents in the archives of Saint-Antoine, and I assume that Macellard is correct, because the scribe of the Valletta manuscript made a few slips in the spelling of proper names. Jean Macellard was a bachelor of civil law and doctor of canon law; he probably studied at the university of Avignon and was in residence at the house of the Order of Saint-Antoine in that city. From 1403 to 1407 he was sub-almoner at Saint-Antoine and grand sacrist from 1410 to 1417.[1] No later record of Jean Macellard has been found among the archives of Saint-Antoine, now at Lyons. These dates warrant the assumption that the great linen cloth was painted only a few years before Prior Guigue Robert gave a commission for the Valletta manuscript of the picture-book. Jean Macellard noted the sources from which he extracted every one of the two hundred pictures: these references are given in the two manuscripts at the end of each description. The better scribe of the Florence manuscript gave all the references, but Pierre Pierre of Istres was less careful and omitted some in the Valletta manuscript. The well-known sources are the life of the saint by his friend St. Athanasius, written soon after St. Anthony's death, which occurred in 355, by request of monks in foreign parts;[2] and the story, told in 374 by St. Jerome, of the visit of St. Anthony to St. Paul the first hermit, which had some historical foundation, but had gathered the accretions of a legend before St. Jerome told it in so charming and poetic a style.[3] Eight incidents are taken solely from the *Vitae Patrum* or Lives of the Fathers, and these are found in the great collection prepared from the manuscripts by the Jesuit Father Heribert Rosweyd and issued by the Plantin Press at Antwerp in 1628.[4] Two other sources were most difficult to discover. There are fourteen incidents of the dream of a king in Palestine, and how he sent camels to carry food to St. Anthony and his monks who had gone out from a city called Patras and were starving in the desert. The reference given for these incidents is the *Legenda Breviarii*. The Abbé Luc Maillet-Guy, who has studied the rare Saint-Antoine breviaries in manuscript and in print, has not found the story, but at the time when the Valletta manuscript was painted, it must have been read as an extra lesson on the feast of St. Anthony. The story occurs in two manuscripts in Rome dated as tenth or eleventh century, one in the Vatican

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[1] L. Maillet-Guy, *Saint-Antoine et Montmajour*, pp. 13–19.

[2] *Ibid.*, pp. 22, 23.

[3] M. Creighton, *A History of the Papacy from the Great Schism to the Sack of Rome*, vol. ii, pp. 167, 233, 234, 328 (ed. 1897).

[4] Printed at Deventer, Holland, by Jacobus de Breda (1491 ?); U. Chevalier, *Biobibliographie*, p. 4637.

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[1] I am indebted to the Abbé Luc Maillet-Guy, formerly sub-librarian of the Académie de Lyon, for this information from the archives of Saint-Antoine, now at Lyons.

[2] 'Vita beati Antonii abbatis auctore sancto Athanasio, episcopo Alexandrino interprete Evagrio presbytero Antiocheno', Migne, *Patrologia Latina*, vol. lxxiii, pp. 126–70. I have made use of the excellent translation and notes in *St. Athanasius, Select Works and Letters*, ed. A. Robertson (Library of Nicene and Post-Nicene Fathers, second series, vol. iv, pp. 188–221.

[3] 'S. Eusebii Hieronymi Vita S. Pauli primi Eremitae, Migne, *Patrologia Latina*, vol. xxiii, pp. 18–27; *Lausiac History of Palladius*, ed. E. C. Butler, vol. i, pp. 231, 232; P. Monceau, *Saint Jérome*, pp. 185-97 (1932). I have made use of the translation in *St. Jerome, Letters and Select Works*, ed. W. H. Fremantle (Library of Nicene and Post-Nicene Fathers, second series, vol. vi, pp. 299–303).

[4] Migne, *Patrologia Latina*, vol. lxxiii.

Library,[1] the other in the Bibliotheca Casanatensis.[2] The Vatican manuscript Latin 1189 is a large collection of lives of the saints, and the source for this story of the king of Palestine's dream and the camels is given plainly as the *Vitae Patrum*,[3] but it is not found in the seventeenth-century text of Father Rosweyd, S.J. The story was translated from Latin into French by a Dominican friar, Pierre de Lanoy, about 1500, and the unique manuscript of the translation was once in the possession of Antoine de Saix, preceptor of the commandery of Saint-Antoine at Bourg-en-Bresse.[4] Several scenes of this story are depicted on the wing of a picture now in the Metropolitan Museum, New York, painted in north-eastern France about 1500.[5] The authenticity of the story was suspected by Aymar Falco, preceptor of Bar-le-Duc, who wrote a short history of the monastery, printed at Lyons in 1534 by Theodore Payen. In a short preface on approved authors who have written on the life of St. Anthony, Aymar Falco rejected this story on the ground that St. Anthony was never abbot of a monastery in any city, and moreover that the only known city of Patras was in Greece.[6]

The sole source for forty-three pictures is given as Alphonsus, a mysterious and elusive author. In the same preface, Aymar Falco wrote these words:—'Alphonsus Hispanus (the Spaniard) made known very many things in writing which he testified that he had read in certain Arabic books; I do not venture to give him the authority of faith nor on the other hand to reject him altogether.' Where the writings of Alphonsus were close to those of St. Athanasius, Cassiodorus, and St. Jerome, Falco was inclined to accept them, but in his judgement other stories for which Alphonsus was the sole authority required proof and were perhaps apocryphal. However, Falco recalled the conclusion of the preface which St. Athanasius wrote to his life of the Saint. 'When I thought I had collected and enumerated a large number of stories, suddenly a great many others, which were far more numerous . . . sprang up and made my mind to be confused, but as many as I was able to remember and to collect my mind hath with joy committed to writing.'[1] After the Council of Trent (1545–63) which led to a serious inquiry into the authenticity of the medieval lives of the saints,[2] the stories of the dromedaries, and of the devil queen and others told by Alphonsus disappear from orthodox hagiography, but the picture-book would have been much poorer without them.

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[1] A. Poncelet, *Catalogus Codicum Hagiographicorum Latinorum Bibl. Vaticanae*, p. 34 (1910).

[2] Codex 3898 ff. 51–7^v, cf. A. Poncelet, *Catalogus Codicum Hagiographicorum Latinorum Bibliothecarum Romanorum praeterquam Vaticanum*, p. 267 (1909).

[3] Vatican MS. Latin 1189, ff. 33–8. I am indebted to Monsignor Mercati for permission to have a photostat reproduction.

[4] M. C. Guigue, *La Légende du Grand Saint Antoine translatée de latin en françois par Frère Pierre de Lanoy Prescheur* (1889).

[5] I am indebted to Miss M. Scherer of the Metropolitan Museum for this information; cf. M. J. Friedlander, *Die altnederländische Malerei*, vol. ii, pl. ciii.

[6] *Antonianae historiae compendium*, pars prima, cap. ix, fol. vi, a rare book. The preface is missing from the copy sent to Malta from Saint-Antoine in 1781. I am indebted to Monsieur Cl. Roux for a photostat of this page from a copy in the Library at Lyons.

After a long search I discovered the identity of Alphonsus and the most remarkable of his stories in a small fifteenth-century manuscript acquired by the British Museum in 1878,[3] and once in a library at Strasburg, in which city there was a commandery of the Order of Saint-Antoine. Alphonsus was a Dominican friar who went out to Egypt and visited monasteries in the desert of Scete in which he found monks living by the rules of St. Anthony and St. Macharius.[4] In the libraries of the monasteries there were lives of the saints 'in many and diverse exceedingly large volumes'. In the year 1342 he translated from Arabic into Latin a little book with the story of St. Anthony's fight with the devil, and the description, which follows, of St. Anthony's encounter with the devil queen who tempted him to matrimony is stated to be an extract from his great long story ('excerpta de magna et longa legenda sua'). Alphonsus had the opportunity of learning Arabic in one of the schools of the Dominican Order at Barcelona or Valencia in which the friars were prepared for their work as missionaries in north Africa and western Asia in the thirteenth and fourteenth centuries.[5] One friar is designated as Alphonsus Hispanus in the catalogue of Dominican writers:

> 'Frater Alphonsus Hispanus cujus vero civitatis fuerit aut conventus alumnus ignotum his annis floruit; Petri de Luna cardinalis tituli S. Marie in Cosmedin confessarius scripsit *Relationem colloquii sui cum dicto Petro de Luna de electione Urbani VI* anno 1378.'[6]

Peter de Luna was the Aragonese cardinal who played a leading part in ecclesiastical affairs at Avignon and became the antipope Benedict XIII in 1394.[7] It is chronologically possible that his Dominican confessor in 1378 called Alphonsus Hispanus was the same Dominican Alphonsus Hispanus, who was in Egypt in 1342, if he was then a young missionary.

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[1] E. A. Wallis Budge, *The Paradise of the Fathers*, vol. i, p. 4.

[2] E. Mâle, *L'Art religieux de la fin du Moyen Âge*, p. 491.

[3] MS. Add. 30972, ff. 65–78.

[4] For a description early in the thirteenth century, cf. *Churches and Monasteries of Egypt attributed to Abû Sâlih, the Armenian*, edited and translated by B. T. A. Evetts, &c., 10 *a*. 54 f. (*Anecdota Oxoniensia, Semitic Series*, vol. vii).

[5] B. Altaner, *Die Dominikaner Missionen des 13 Jahrhunderts*, pp. 72–89, 91–4 (*Breslauer Studien zur historischen Theologie*, ed. J. Wittig and F. X. Seppelt, vol. iii). I am indebted to Dr. A. G. Little for this reference.

[6] J. Quetif et J. Echard, *Scriptores Ordinis Predicatorum*, vol. i, p. 676 (ed. 1719–21).

[7] M. Creighton, *History of the Papacy*, vol. i, p. 147.

According to the colophon of both manuscripts Jean Macellard compiled the story first depicted on the great linen cloth from the legends and life of St. Anthony. Was his contribution limited to the choice of the subjects and the composition of the few Latin lines below the pictures? The discovery in the Bibliothèque de l'Arsenal in Paris of a book printed in Lyons in 1555 has enabled me to solve this problem.[1] The title of the book is 'La Vie de Monseigneur Sainct-Anthoine Abbe. Et les choses merveilleuses qui lui advinrent ez desertz. Ensemble comment son glorieux corps fut trouvé par revelation divine et porté a Constantinople et de la transporté en Viennoys.' It is a small quarto in a hundred and twenty-four pages with fifty woodblock illustrations and the printer was 'Pierre de saincte Lucie dict le Prince pres nostre Dame de Confort a Lyon sur le Rosne'. Though Jean Macellard's name is not mentioned, 'La Vie de Monseigneur Sainct Anthoine' is a sixteenth-century French text of his compilation, every incident in the picture-book is described and in the same order, and the fifty woodblocks show almost all the same incidents though illustrated in a different fashion. It may be concluded that an original Latin text with its detailed descriptions was studied and followed closely by the artist of the Valletta manuscript, Master Robin Fournier.

The Painter of the Picture-book

The name of Master Robin Fournier of Avignon has hitherto been known to French scholars from a single document.[2] On 12th September 1426, five months after the picture-book was finished and the colophon written by Pierre Pierre of Istres, Master Robin Fournier, a citizen of Avignon dwelling at Saint-Antoine, made a contract with the chapter of the cathedral church of Grenoble to paint the organ case with figures of the Annunciation, of God the Father enthroned, the Holy Spirit, and six figures of saints in good and fine colours and burnished gold.[3] None of his work could be identified, but some

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[1] I traced this unique copy with the help of the Paris publisher, Monsieur Henri Laurens; the title occurred in the short bibliography in *Saint Antoine* by the late Claude Champion in the series *L'Art et les Saints*. When Monsieur Baudrier completed the *Bibliographie Lyonnaise* of the sixteenth century in 1921, he noted that no copy of the book was known, vol. xii, p. 154. I am indebted to Monsieur Batiffol, Librarian of the Bibliothèque de l'Arsenal, for permission to have a complete photostat reproduction of the book.

[2] L. H. Labande, *Les Primitifs Français*, pp. 82, 83, 1932.

[3] *Bulletin d'histoire ecclésiastique . . . de Valence*, vol. xiv, p. 198 (1894), from the original in the archives of the évêché of Grenoble, transcribed by Monsignor Bellet. The name is there spelt Robin *Favier*. The document was reprinted in 1896 in *Réunion des Sociétés des Beaux Arts des départements*, pp. 96–103, by Monsieur Joseph Roman who noted that the original could not be found in the archives of the évêché. Some years later these archives were transferred to the Archives

French archaeologists have suggested the attribution to him of the finest of the wall paintings which have survived at Saint-Antoine.[1] A comparison between these wall paintings and the Valletta manuscript proves that the former were not executed by Master Robin Fournier, though it is most probable that he was responsible for other work at Saint-Antoine, which has not been identified.

Mr. Cockerell has noted that the general scheme in both the Valletta and the Florence manuscripts is a combination of grisaille buildings and figures, with blue-green grass and foliage and red sky. Liquid gold is used throughout for St. Anthony's halo as well as for crowns and girdles. The pictures are large. They vary somewhat in size, but 190 × 200 mm. may be taken as the average dimensions. The two books are not absolutely alike, in the pictures there are sometimes little differences of detail and of treatment such as the same artist would have chosen, whereas a mere copyist would have followed the Valletta book exactly. My study of the Valletta book has led me to the same conclusion. Master Robin often introduced variations in detail, e.g. flat tiles or pantiles, when he repeated the same scenes and figures. Although the names of the artist and scribe are not given in the colophon to the Florence book, there can be little doubt that Jean de Montchenu gave the commission to Master Robin Fournier; the scribe employed was more skilled than Pierre Pierre of Istres, and his initial letters and text are more ornamental.

The details of costume and armour are so completely up to date that most probably the great linen cloth was a very new acquisition, and may also have been painted by Master Robin Fournier.[2] In Mr. Cockerell's judgement the pictures have all the appearance of being original compositions, and it may be said of Master Robin that, though often faulty as a draughtsman, he was a man of notable invention and of considerable dramatic sense.

The Valletta manuscript originally consisted of 102 leaves or 204 pages. The first two pictures represent St. Jerome and St. Athanasius seated at writing desks, and the last two pictures St. Augustine and St. John Chrysostom.[3] Between them were 196 pictures of which four are now missing; the last picture of the series represents St. Anthony with the kneeling donor, Prior Guigue Robert.

Under each picture is a short Latin description and the source is given as *Athanasius*, *Jerome*, *Vitae Patrum*, *Legenda Breviarii*, *Alphonsus* with an

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Départementales, but the missing original has not been recovered. I am much indebted to Monsieur A. Letonellier, the keeper of the Archives Départementales at Grenoble, for this information, and for the searches he has made for the document.

[1] e.g. H. Dijon, *L'Église abbatiale de Saint-Antoine*, pp. 294–303.

[2] *Burlington Magazine*, February 1933, p. 65.

[3] *Ibid.*, p. 65.

occasional reference to St. Thomas Aquinas, the Canon Law, and the Confessions of St. Augustine.

Some illustrations from the Picture-book

Forty-four out of the two hundred pictures are given on eleven plates; they are reduced to a quarter of the size of the originals, which are of varying dimensions and average 7½ in. by 7¾ in.

(1) St. Jerome is seated at his desk on which is a bookstand revolving on a screw.[1] He has used it as a peg for his cardinal's hat, attributed to him in medieval art because he was secretary to Pope Damasus. Some of his books are in the space below the top of the desk. He has mentioned St. Anthony in the letter which the priest has in his hand, and it is probably destined, from the reference which follows, for the old man, Paul of Concordia, to whom St. Jerome dedicated the life of St. Paul the Hermit (pl. 1, 1).[2]

(2) The birth of St. Anthony. He was the first-born child of noble and religious parents, and was dedicated by them to religion before his birth; therefore both parents and child have gold haloes. A servant is giving alms of food from a basket at the door to some poor men who carry notched sticks; their feet are bare or bursting out of their shoes (pl. 1, 2).

(3) A room in the house of St. Anthony's parents, the father and mother seated on a bench with a high back at a trestle table, on which are placed bread, a knife, and a salt-box. The little St. Anthony, always content with the plainest food, receives a piece of bread from his father. In the background a servant stands behind a sideboard on which are a tall silver ewer, a gold standing salt, and five plates. In a second scene, the little St. Anthony, barefoot, is giving away loaves to two beggars. The shield of arms of the monastery of Saint-Antoine is shown over the door, and is here painted *or a tau cross sable* (pl. 1, 3).

(4) (*a*) From the time he is three years old St. Anthony goes of his own will to church with his parents, and does not stop to play games with other little boys, one of whom is seated on the step of the chapel intent on the windmill game, and another is astride a hobby horse. The architecture of the chapel is of a nondescript character; the tower to the side is similar.

(*b*) St. Anthony is in prayer in the chapel before the altar, on which are placed two candlesticks, a chalice, and a paten, all of gold; the priest is vested in a chasuble and is celebrating mass, attended by a youthful server (pl. 1, 4).

In another picture, as Alphonsus related, St. Anthony was taken by his parents to visit the Patriarch of Alexandria, who foretold that St. Anthony would be greater than patriarchs and bishops and would rank next to Christ.

(5) The funeral of St. Anthony's parents. The procession approaches the chapel, which has three lancet windows separated by buttresses on the south and a porch on

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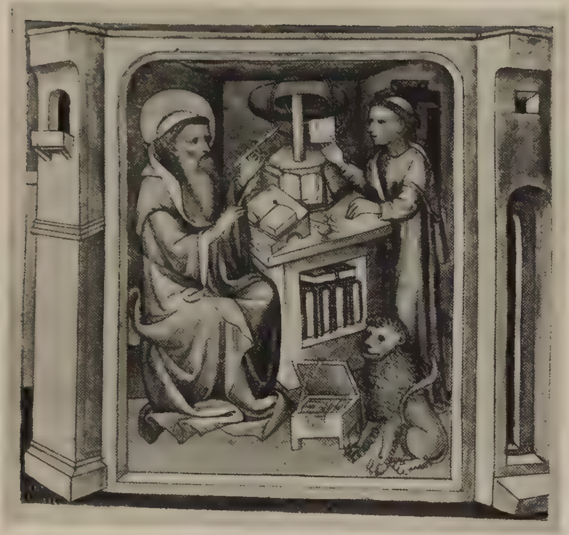
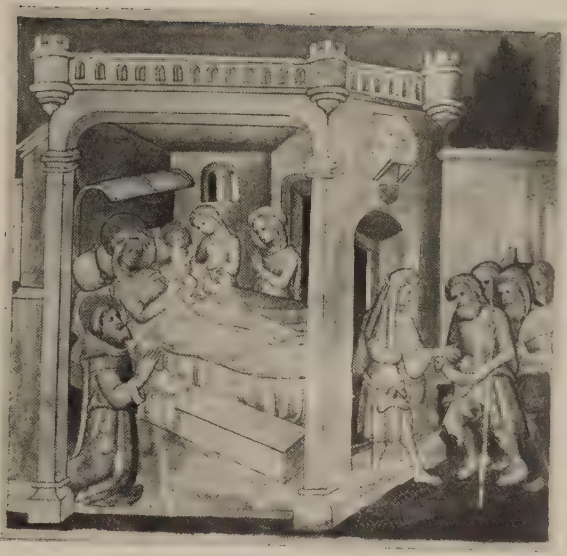
[1] J. W. Clark, *The Care of Books*, pp. 304–8.

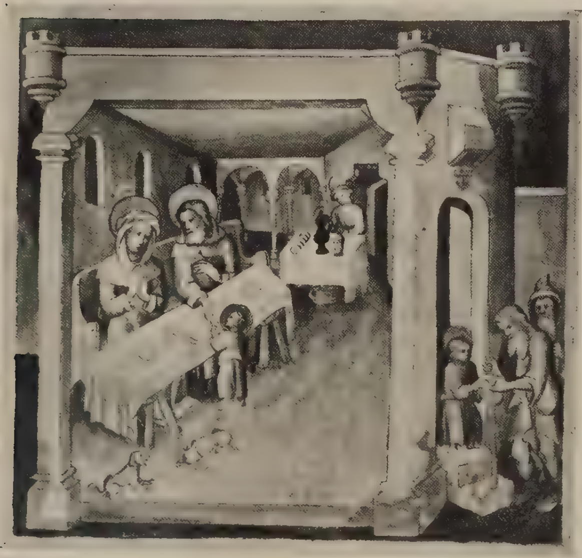
[2] *St. Jerome, Letters and Select Works*, ed. W. H. Fremantle, *op. cit.*, pp. 11, 12, 299.



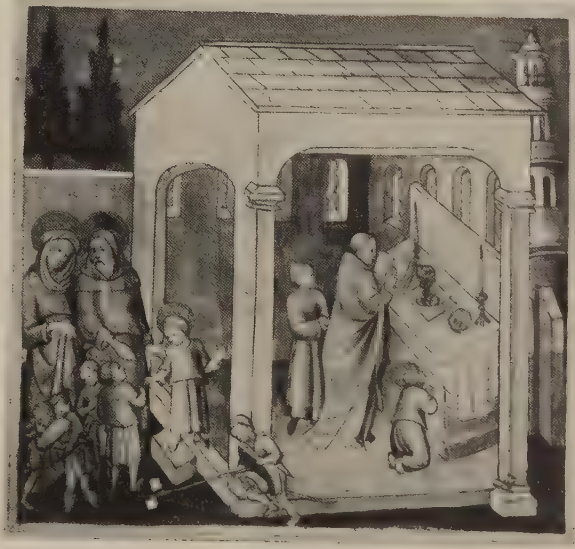
1. St. Jerome



2. The birth of St. Anthony

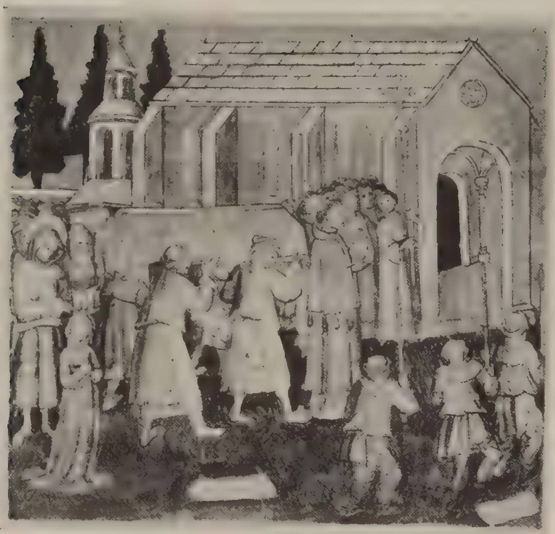


3. A room in St. Anthony's home

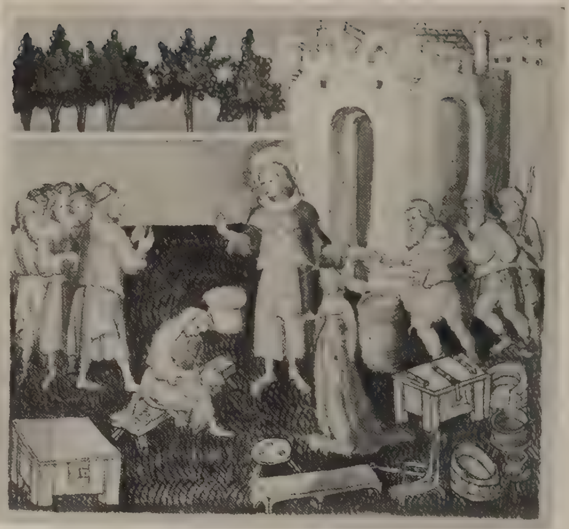


4. St. Anthony in church

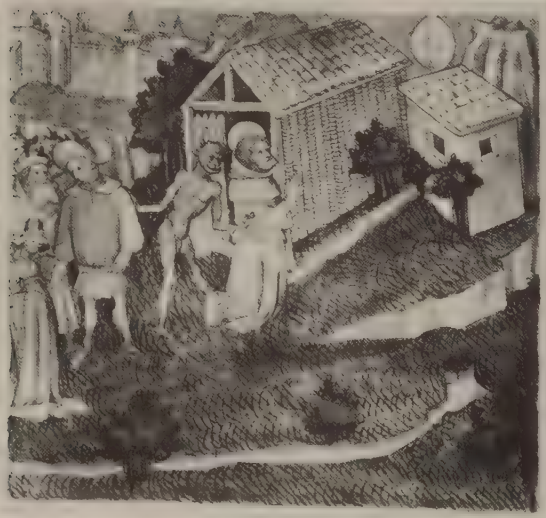
Published by the Society of Antiquaries of London, 1933



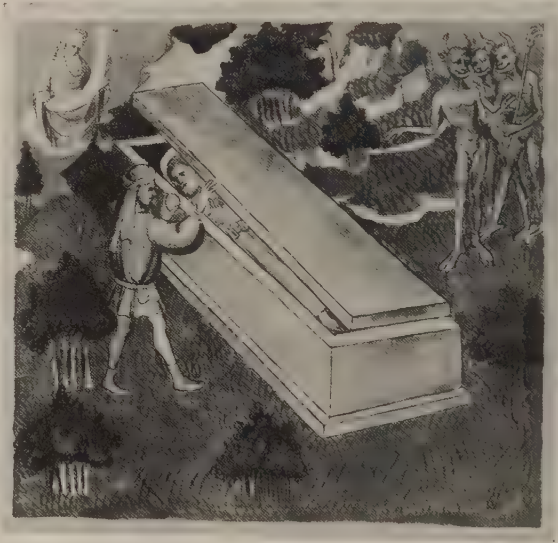
1. The funeral of St. Anthony's parents



2. The sale of St. Anthony's household goods

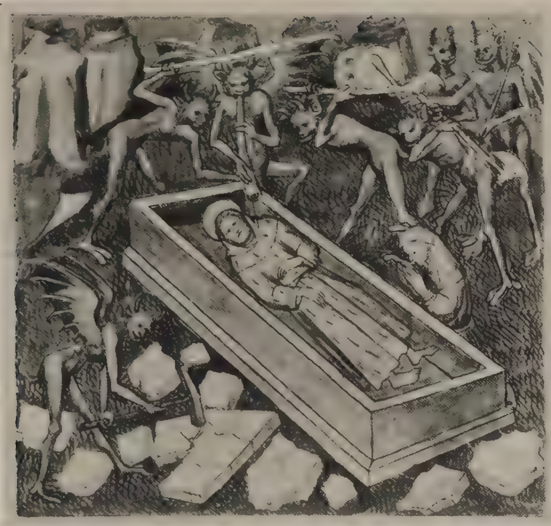


3. The temptation of St. Anthony by the devil

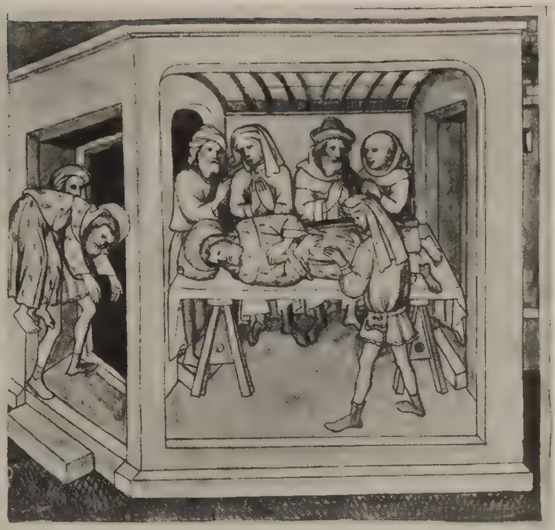


4. St. Anthony's abode in the tomb

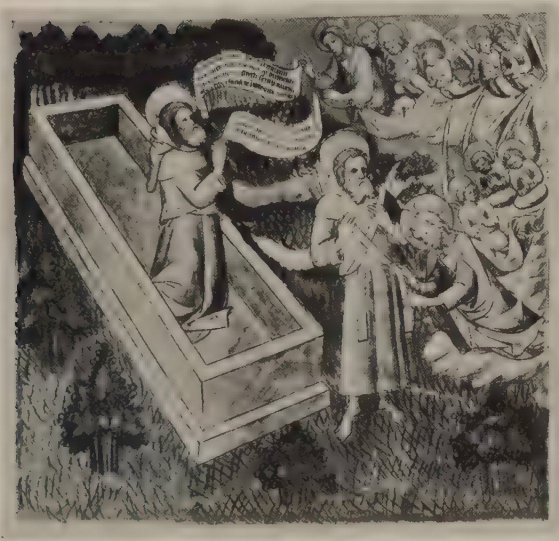
Published by the Society of Antiquaries of London, 1933



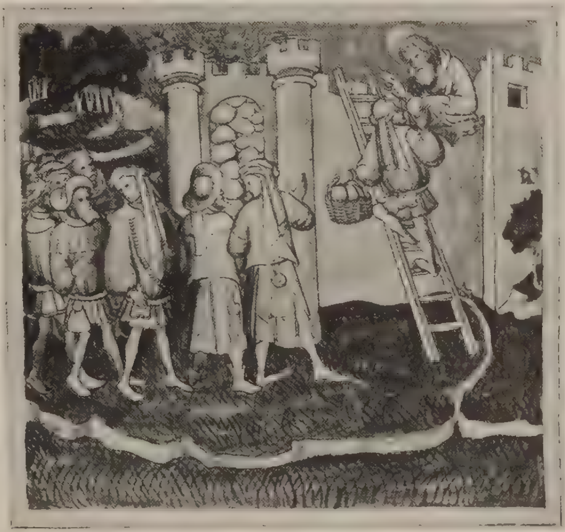
1. The assault on St. Anthony by the devils



2. St. Anthony is taken to a house in the village



3. St. Anthony's vision of Christ



4. St. Anthony in the fort at Pispir

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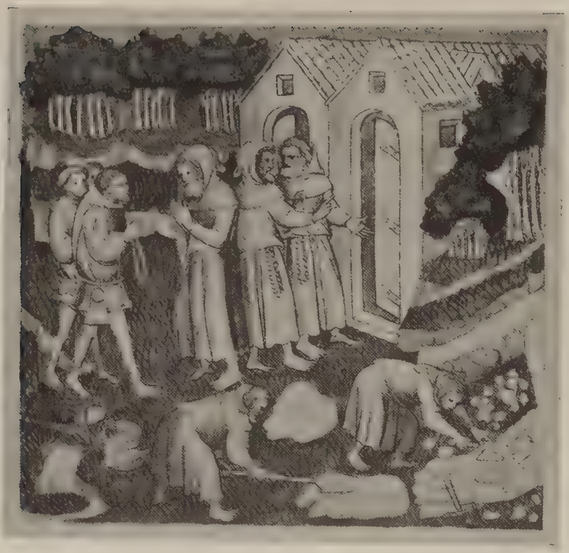
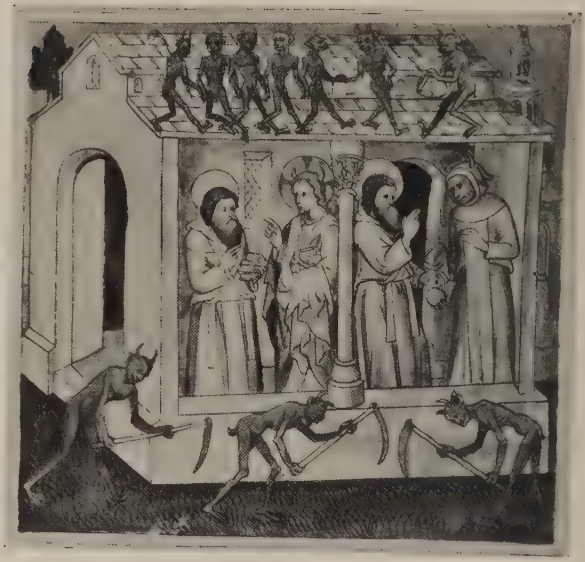
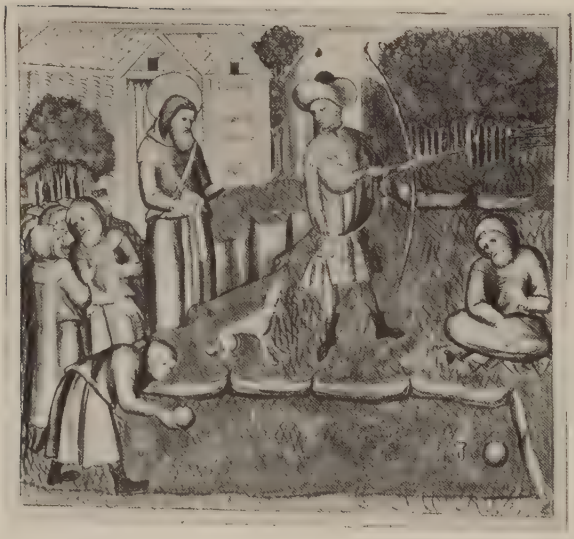


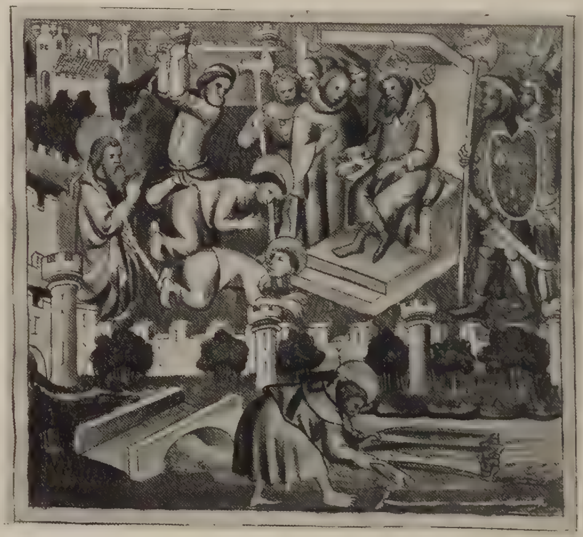
1. The building of the cells



2. St. Anthony's temptations by devils



3. St. Anthony and the archer



4. St. Anthony in Alexandria with the martyrs

Published by the Society of Antiquaries of London, 1933

the west, and the roof has flat tiles. The priest wears an almuce, a tippet lined with fur, and in the fifteenth century it became the custom to hang round the almuce the tails of the animals from which the fur was taken.[1] The cross-bearer has a tall crucifix; three men bear lighted candles. St. Anthony, aged eighteen, and barefoot, follows the bier with his young sister. Two stone slabs in the foreground indicate a cemetery (pl. II, 1).

They were rich young people, with a property of three hundred acres. One day in church St. Anthony heard the Gospel with Christ's words to the young man who had great possessions: 'If thou wouldest be perfect, go, and sell that thou hast, and give to the poor; and come, follow me, and thou shalt have treasure in heaven.' He gave the land of his forefathers to the villagers and sold everything movable.

(6) St. Anthony is standing outside his home on the grass superintending the sale of all his household goods, among them a pair of firedogs, a chest with iron straps, two pots with handles, a three-legged stool, and a cask. A young man seated on a low bench makes entries in a book, his inkstand and pencase beside him. The purchasers are on the left; between them and St. Anthony is a bucket or sack full of gold bezants, which he gives away to the beggars; one of them has a water-gourd slung at his side, another a shoe sole. His little sister, wondering, has a small purse, the little portion St. Anthony has reserved for her (pl. II, 2).

Hearing in church the words of the Gospel, 'Be not anxious for the morrow', St. Anthony gave away the little he had kept and took his sister to a convent.

St. Anthony went away to live among some ascetics near his native city.

(7) St. Anthony kneels in prayer outside the door of his cell; he is some years older, he has light brown hair and a short beard which gradually grows longer in later pictures. The devil behind him recalls memories of the world he has left, indicated by the city walls with pepper-pot towers, his sister, a young man taking her by the hand, two old men and others behind. The horns of the devil are original, the others have dark horns painted in afterwards. St. Anthony sees a vision in the sky of God the Father nimbed holding up Christ crucified (pl. II, 3).

St. Anthony departed to the tombs at a distance from the village; and having bid one of his acquaintances to bring him bread at intervals of many days, he entered one of the tombs, and the other shut the door on him.

(8) The Egyptian tomb chamber was unknown to Master Robin, and St. Anthony is depicted lying in a flat tomb, and his acquaintance is lifting the stone and bringing him a loaf of bread. Three devils take counsel together on the right; in the top left hand corner is a vision of Elijah (pl. II, 4).

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[1] W. H. St. John Hope, 'On some remarkable ecclesiastical figures in the Cathedral Church of Wells', *Archaeologia*, vol. liv, pp. 81–6; D. Rock, *The Church of our Fathers*, ed. G. W. Hart and W. H. Frere, vol. ii, pp. 43–5. John Colet is depicted in an almuce with fur tails in MS. 1509, Dd. 7. 3. Cambridge University Library, cf. *Medieval England*, ed. H. W. C. Davis, p. 244, fig. 285.

(9) A band of seven devils has assailed St. Anthony, now aged thirty-five. Three devils have wings, one devil blows a horn, another beats a tambour; they have broken the cover of the tomb, and one continues to smash it with a mallet. Two are assaulting St. Anthony, who lies in the tomb sorely wounded, his habit stained with marks of blood. The acquaintance from the neighbouring village kneels in prayer by the tomb (pl. III, 1).

(10) (*a*) The good neighbour is at the door of the house carrying the sorely wounded and unconscious St. Anthony.

(*b*) St. Anthony is laid unconscious on a trestle table covered with a sheet. Four men mourn him for dead (pl. III, 2).

While they fell asleep St. Anthony recovered consciousness and told the good neighbour to carry him back to the tomb, and he was again attacked by devils.

(11) (*a*) St. Anthony, kneeling in prayer in the tomb, has a vision of Christ in the clouds, with five little angels nimbed. He besought the vision, saying 'Where wert thou? Why didst thou not appear at the beginning to make my pains to cease?' And a voice came to him, 'Anthony, I was here, but I waited to see thy fight; wherefore since thou hast endured, and hast not been worsted, I will ever be a succour to thee, and will make thy name known everywhere'.

(*b*) Alphonsus alone related the sequel that Christ descended followed by three of the angels, and clothed St. Anthony in a monk's scapular, and put a stole on him, worn as a priest wears it to celebrate mass.[1] Henceforth in the picture-book St. Anthony is always depicted with this stole; the long ends of the stole are tucked into the girdle to keep them in the right place, and preserve the crossed condition. The eucharistic stole was worn thus crossed in England since at least the end of the fourteenth century, and is shown on brasses at Sudborough, Northamptonshire, *circa* 1415, and at Horsham, Sussex, *circa* 1430. It was an innovation here, as in France, on the older custom of wearing it hanging straight down (pl. III, 3).

St. Anthony went away alone and found a refuge in a deserted fort at Pispir by the Nile.

(12) The entrance to the fort has been blocked up with stones by St. Anthony, who spent nearly twenty years in this solitude. He is receiving a provision of bread from a man on the ladder, who comes twice a year. A group of devils looks over from the top of the wall at a number of men who have been attracted by the fame of St. Anthony and wish to become his disciples; they wear fashionable hats, the first has very pointed shoes, the second a large knife hanging from his belt, the third a baudric, and their purses are suspended from hip belts (pl. III, 4).

St. Anthony came out at the age of forty-seven to be their teacher.

(13) Three wealthy young men who wish to embrace the life of religion are received

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[1] G. Clinch, *English Costume*, pp. 222, 223; D. Rock, *The Church of our Fathers*, ed. G. W. Hart and W. H. Frere, vol. i, pp. 342, 343.

by three barefooted monks carrying rosaries, standing outside their hermitages on the mountain side. Two others are building another cell close by, and are using a mason's tools, a trowel, a stone-hammer, and a hod; a bowl and a tub with a handle are between them and the stream. The place is known as the Mountain of Anthony at Pispir or the Outer Mountain (pl. IV, 1).

In another picture a crowd of armed devils swarmed out of a cavernous hell mouth; they continued to plague St. Anthony and assail him with manifold temptations.

(14) Two scenes are shown in the chapel, while on the roof a devil pipes to six devils dancing merrily, and three other devils in the foreground wield picks to break up the ground and undermine it.

(*a*) The devil disguised as Christ appears to St. Anthony.

(*b*) The devil disguised as a monk tempts St. Anthony to break his fast with a loaf of bread (pl. IV, 2).

(15) The story of St. Anthony and the archer, which occurs in the *Vitae Patrum*, is repeated in the Golden Legend, in Caxton's translation, in these words:[1] 'A young man passed by St. Anthony and his bow in his hand, and beheld how St. Anthony played with his fellows and was evil apaid (i.e. ill pleased). Then St. Anthony said to him that he should bend his bow, and so he did, and shot two or three shots before him and anon he unbent his bow. Then demanded him St. Anthony why he held not his bow bent. And he answered that it should then be over weak and feeble; then said to him St. Anthony: "In likewise play the monks for to be after more strong to serve God."' The archer is a rich young man dressed in the latest fashion with dagged edges to his costume. A young monk is playing a game of bowls with an older monk; it is an ancient way of playing the game in which two small cones are placed upright at a distance from each other, the players bowl at them alternately, and the one who lays his bowl nearest to the mark is the winner (pl. IV, 3).[2]

At the time of the persecution of the Christians under the Emperor Maximin, in the years 303 to 311, St. Anthony sought the crown of martyrdom and hastened with some of the monks to Alexandria. St. Athanasius related that St. Anthony visited the prison, and although the judge commanded that no monk should appear in the judgement hall, St. Anthony encouraged the prisoners by his presence and went with them to the place of execution.

(16) (*a*) St. Anthony is washing a garment in the river outside the city walls to appear in a white robe in the judgement hall.

(*b*) He is present at the trial scene. One soldier carries a Moorish adarga (a heart-shaped shield), a scimitar, and a pole-axe.

(*c*) He is present at the execution of the two martyrs (pl. IV, 4).

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[1] Liber v libellus x. Migne, *Patrologia Latina*, vol. lxxiii, col. 912; The Golden Legend, vol. ii, p. 227 (Dent, 1900).

[2] J. Strutt, *Sports and Pastimes of the People of England*, ed. J. C. Cox, p. 216, pl. xxx.

The story of the king of Palestine's dream is told in fourteen pictures. St. Anthony was abbot of a monastery with a large number of monks in a city of Egypt called Patras. He was beset by people who came either for spiritual consolation or to be healed of their infirmities.

(17) (*a*) The crowd of men and women entering the church, the last woman taking holy water from the stoup.

(*b*) St. Anthony speaking to the monks.

(*c*) St. Anthony, very weary, has fallen asleep. He has a vision of an angel telling him to leave the city with any monks who will follow him (pl. v, 1).

Over a dozen monks set out in his company, they climbed a high mountain and came to a valley with a stream and trees which they recognized by the marble statue of a man as the place where Moses struck the rock for the rebellious Israelites and the water gushed out. The monks made lodges of palm-trees as a refuge from the heat of the sun; after three days they had no bread left and they murmured like the children of Israel in the desert. There was a wise and well-beloved king in Palestine, and while he slept he had a vision of the angel who said 'Rise up and send food to my servants who are enduring great hunger'. The king forgot the vision when he woke, but the next night the angel appeared again, and again the third night, warning him that he would die if he did not obey. Forthwith the king was smitten with a terrible illness. The angel, disguised as a poor pilgrim, came asking for alms and heard how the people sorrowed for their dying king who could not learn where to send food to the starving servants of God. He entered the palace and gave counsel to the king.

(18) (*a*) The angel, in pilgrim's dress and carrying a staff, seeks to enter the palace and is confronted by a young man wearing a large hat and a gold baudric.

(*b*) He finds the king lying in his bed, and wearing a conical cap with a crown, probably to show that he is an oriental ruler; the doctor stands at the foot of the bed.

The angel told the king to load dromedaries with provisions and tools for building, and other necessaries, to put a bell on the neck of one dromedary, and send them out of the city (pl. v, 2).

(19) The departure of the dromedaries, the leader with a gold bell. The angel as a pilgrim turns to speak to the king wearing his high hat, gold crown, and gold baudric, and carrying his sceptre (pl. v, 3).

(20) The arrival of the dromedaries. St. Anthony tells the monks to unload them and care for them as a good host should, and they drink in the stream. He dictates a letter of thanks to the monk seated with an inkpot at his side (pl. v, 4).

The dromedaries returned with the letter attached to the leader with the bell. When the king received the letter he was so moved that he renounced his kingdom and set out with several companions to become monks in the new monastery which the monks and St. Anthony were building.

The world followed St. Anthony to this new monastery in the place known as the Outer Mountain, and he resolved to go away alone.

(21) St. Anthony, warned by an angel, is watching on the bank of the river for the arrival of a ship sailed by Arabs who are bringing merchandise into Egypt. The ship is a merchantman of the type in use in the Mediterranean from the eleventh to the fifteenth century.[1] These merchantmen are shaped in design like a melon slice or a crescent moon. In the days before good charts, ships were liable to run aground, and in the Mediterranean there was no tide to help them off, so the weights were shifted from one part of the hold to the other, and the curved construction did the rest. This ship is carvel built; the whole of the framework was completed before the actual planking was attached. The yards are not single spars but double, being fastened together in the middle to strengthen the support given to a large sail, a characteristic of Southern ships. The forecastle is absent or undeveloped, whereas in Northern ships the two castles were nicely balanced. The master is actuating the tiller by means of a vertical hand grip which is not entirely efficacious, as is shown by the careful device for preventing undue oscillation on the part of the rudder, which is restrained on either side by rudder tackles. The blocks are too near the top of the mast unless Master Robin confused them with the tackle for raising the yard (pl. VI, 1).

St. Anthony crossed in the ship and walked for three days to the foot of a high mountain at a spot where there were palm trees and a well of sweet water. It was on a caravan route, and as the Arabs passed by they brought him bread and dates, and his cell was a cave in the mountain side. It was the spot known as the Inner Mountain.[2] St. Anthony had a little vegetable garden, and one morning he found that wild animals had not only eaten off young plants, but had trodden the rest under foot. Alphonsus related that as St. Anthony walked in the desert, making a plait for a basket, he met the devil in the guise of a hunter who was seated weaving nets as snares for wild beasts, so he asked him to make a net to trap the animals who had ruined his little garden. 'I will gladly prepare a snare for you,' said the devil hunter, 'a very fitting one, and I hope it will suit you well.' St. Anthony went on his way and he came to a river and suddenly he saw on the bank of the river a fair lady who had just come out from bathing and ten handmaidens who were bathing. St. Anthony began to flee, but the lady cried after him, 'O solitary dweller in the desert, I have long been looking for you to teach me the way of salvation.' The maidens helped their lady to put on her rich clothes and she persuaded St. Anthony to sit by her and sought to beguile him. 'Do not look at me,' she said, 'but you must not wonder if I look at you. God made man of the dust of the earth but he took woman from the side of man, and therefore a man ought to look at his mother earth and a woman ought to gaze at a man.' Aymar Falco, the sixteenth-century historian of Saint-Antoine, quotes these words as a shrewd remark of the devil queen.[1] She showed a familiar knowledge of the bible and told St. Anthony that she too had the power of working miracles; and bade him look across the river at the two fair cities of which she was queen.

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[1] I am indebted to Professor G. Callender, F.S.A., for this description and that on p. 20.

[2] *Ante*, p. 2, note 1.

(22) The queen and her maidens take him by the hand and they walk across the river dryshod. The queen and the first maiden wear very pointed shoes, she and the last maiden have gold belts; the turn-over collars are the same as the collar on the brass of Joan Peryent in Digswell church, Hertfordshire, dated 1415.[2] One maiden wears a turban. The horns in this and the following pictures are lightly indicated in brown wash at a later date, and are not found in the Florence manuscript (pl. VI, 2).

There were watchers on the towers of the cities, and when they saw their queen approaching, a procession of musicians, lords and ladies, citizens and their wives, and the common people came out to greet her, and they brought her chariot covered with cloth of gold and precious stones, and she bade St. Anthony seat himself beside her.

(23) The chariot is depicted as a horselitter slung on poles. The foremost musician has a trumpet, the last a clarion, and the one in the middle is playing a recorder or vertical flute, which was generally known as the *Fistula Anglica* or English flute to distinguish it from the *Fistula Germanica*, the transverse flute commonly in use to-day.[3] The French name of the recorder is the Flute Douce. One musician has a gold belt, the other two have gold medallions hung on chains round their necks. Four youths kneel in front, two hold their hats, one being of the bag shape, the last has a gold belt. There are gold ornaments on the front of the chariot (pl. VI, 3).

(24) St. Anthony is seated by the queen in the litter, carried on poles by two horses, one in front, one behind. The horns of the devil driver are original (pl. VI, 4).

St. Anthony and the devil queen after entering the gate of the city passed along the street of the money-changers and the goldsmiths whose shops were full of plate and jewels and precious stones.

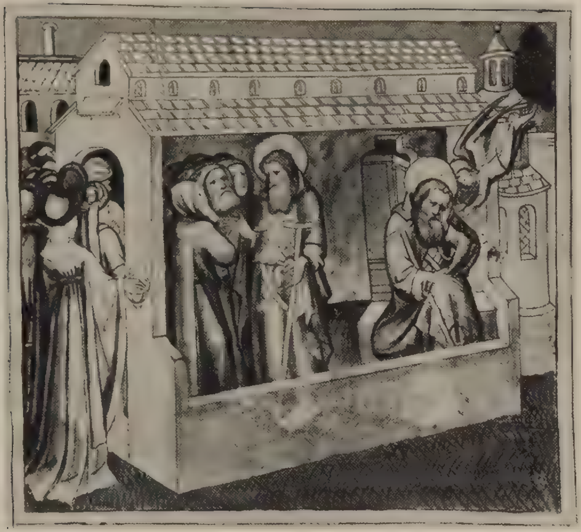
(25) The street of the money-changers; in the first shop they are weighing gold, in the second they are counting a pile of gold on a counter with a green cover and a white front (pl. VII, 1).

(26) The street of the apothecaries and grocers who sold sweet-scented spices. The apothecary is using a pestle and mortar; the canisters on the shelves are painted red and green (pl. VII, 2).

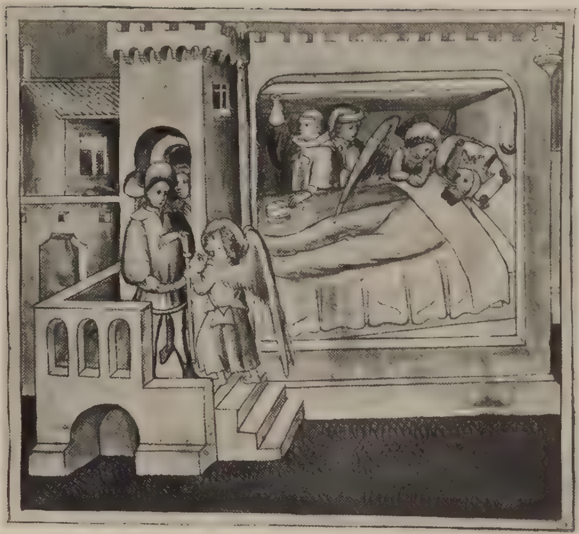
[1] *Antonianae historiae compendium*, pars prima, cap. xviii, fol. xii.

[2] I am indebted to Mr. J. G. Mann, F.S.A., for this reference.

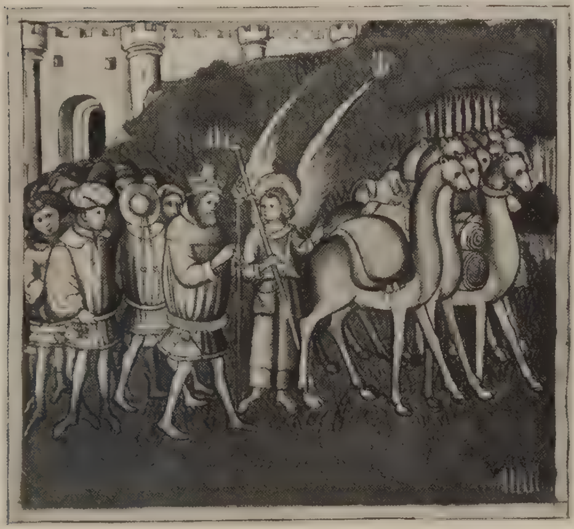
[3] F. W. Galpin, *Old English Instruments of Music*, pp. 134-44, pl. XXIX.



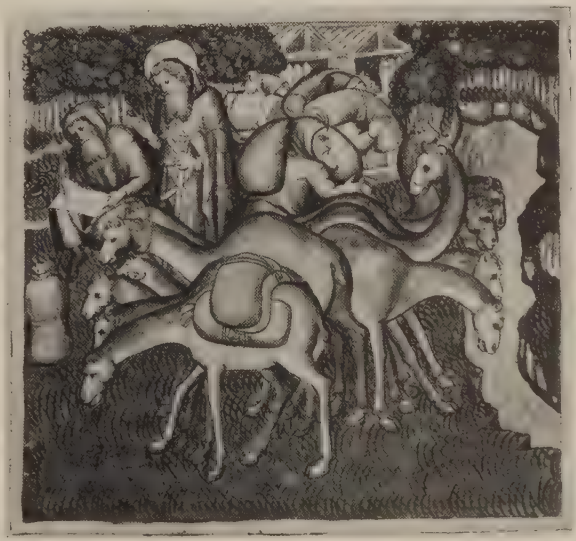
1. St. Anthony in the monastery at Patras



2. The illness of a king of Palestine



3. The departure of the dromedaries for the desert



4. The unloading of the dromedaries by St. Anthony's monks

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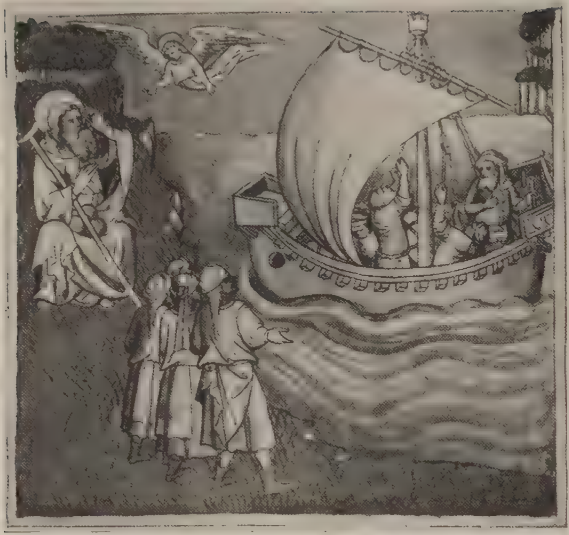
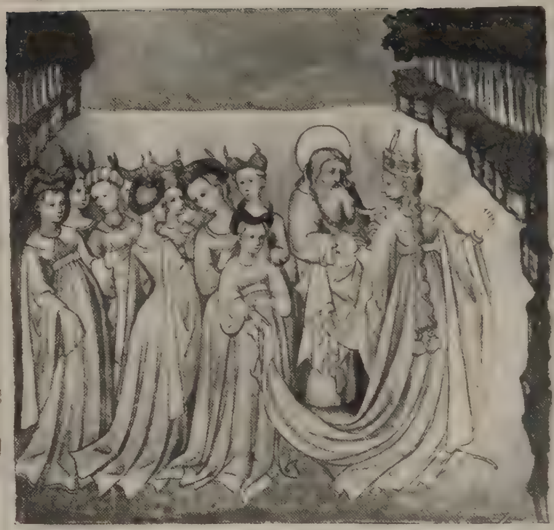
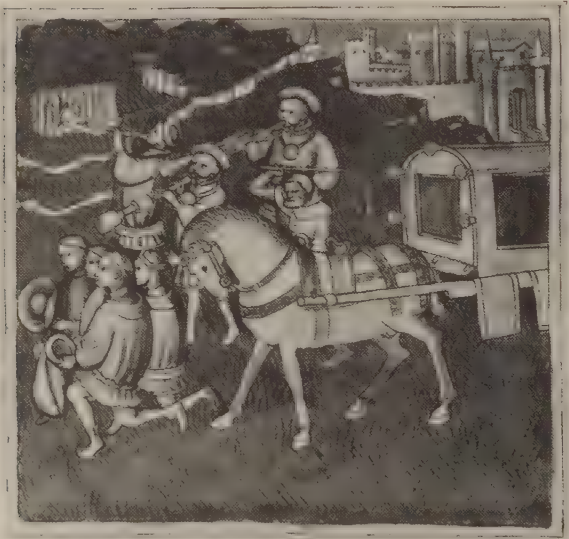


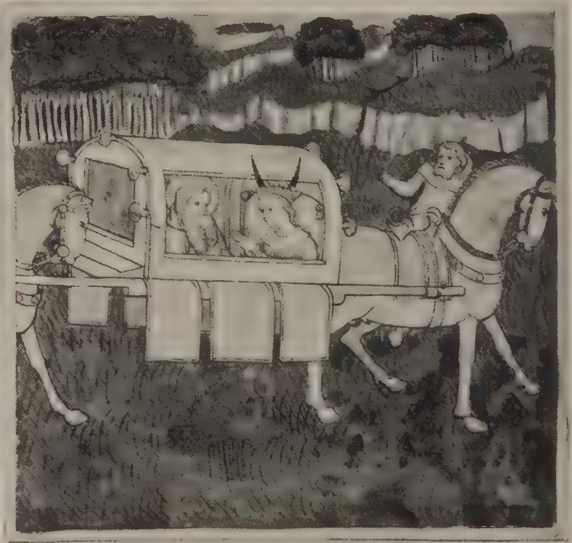
1. St. Anthony awaits the arrival of the Arab merchantman



2. St. Anthony is led across the river



3. The devil queen's horse litter and musicians



4. St. Anthony seated by the devil queen in the horse litter

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(27) The street of the cloth merchants. The merchant is making an entry in his ledger, his pencase on the counter by him. There are piles of green, red, blue, grey, and black cloth on the shelves (pl. VII, 3).

(28) The street of the armourers in which many craftsmen were forging armour and the din was so great that it was impossible to hear the thunder of God. On the counter is a hounskull with aventail (a visored bascinet with mail tippet) with a small plume on the apex. A pair of bell-cuffed gauntlets and an arming sword hang outside. Inside the shop are a visored bascinet with gorget, a bascinet or sallet with bevor, a mail shirt, a breastplate with skirt of lames, a pair of cuisses with poleyns (kneecaps), a pair of vambraces for the arms. There is some more mail in the background of the booth on the left (pl. VII, 4).[1]

In this very rich city there were beautiful fountains, and their waters flowed in channels in the streets and kept them clean. There were high towers on the walls and in one quarter was the fortified palace. As St. Anthony and the devil queen made their way thither, she spoke much of her husband, the late king, and deplored her widowhood. He watched her work miracles of healing on the halt and the sick in a room of the palace. Then she led him into her own chamber and reasoned with him about the superiority of the active to the contemplative life, and exalted the married state above single blessedness, quoting the Scriptures and recalling the Patriarchs. Finally she asked St. Anthony to be her lawful husband; he was bewildered and wearied by her long and eloquent discourse. She believed that she had shaken his resolution to die unmarried and attempted to take off his monk's habit. At that moment St. Anthony recognized her as the devil and held on fast saying: 'I will not take off the habit which our Lord himself put on me. What other defence have I against the devil?' He made the sign of the cross, whereupon the illusion vanished; all the dwellers of the city turned into devils, attacked St. Anthony with fury, and left him sorely wounded. In the next picture he had a vision of Christ who healed him. On his way back to his cell he again met the devil hunter weaving a net, and the hunter greeted him with the words 'I did prepare a snare for you'.

The next series of twenty pictures illustrates another remarkable story attributed to Alphonsus. St. Anthony and other hermits had driven all the devils out of Egypt, and they came to the western lands and principally to Catalonia, because the people of those parts were not firm in the Christian faith. The barons and the people entreated the king to send messengers to fetch St. Anthony, but he paid no heed until the devils possessed his wife and son and daughter. He was in despair until his wise councillor, the provost

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[1] I am indebted to Mr. J. G. Mann, F.S.A., for this and all other descriptions of armour.

Andrew, advised him to send wealthy men with large presents to Egypt to find St. Anthony and invite him to visit the kingdom of Catalonia.

(29) The king hands the letter of invitation to St. Anthony to a richly dressed messenger with a roundel dagger at his belt; the king carries his sceptre, and another richly dressed young man holds the sword in its scabbard with the belt wound round it carried as a sword of estate; both men have costly hat ornaments. The scene is on the quay outside the walls of Barcelona, and the ship awaits the messenger; it is again a Mediterranean merchantman, and on the banner are arms intended for those of the kingdom of Aragon: *or, four pales gules* (pl. VIII, 1).

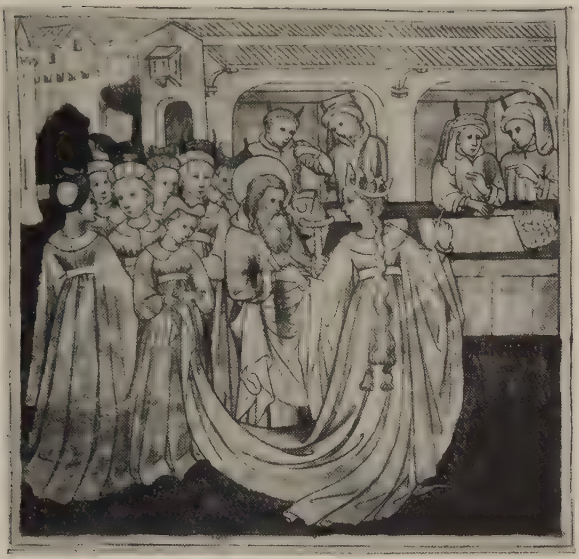
The messengers arrived at Alexandria and were received by the patriarch who sent them on to St. Anthony; he received them courteously and promised to follow them and they took leave of him. St. Anthony started to walk through the desert by night when a cloud came down and, attended by two angels, he was transported to Barcelona.

(30) The arrival at the port of Barcelona at which the cargo of a Mediterranean merchantman is being unloaded. The supports of the mast of this ship are rather nicely drawn, and here the blocks suggest their proper function: they are pulleys or purchases for setting up the rigging when the ropes get slack (pl. VIII, 2).

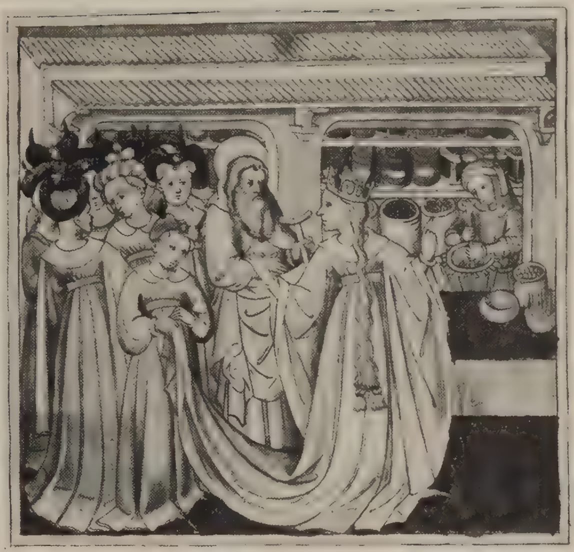
St. Anthony arrived on the cloud long before the ship from Alexandria, and was turned away from the palace, so he wandered through the city until he came to a great house which was the home of the provost Andrew. He knocked at the door and was bidden to come in. As St. Anthony entered the courtyard he was met by a sow carrying in her mouth her baby pig who was blind and lame, and she laid the little creature at his feet as if to say 'Heal my child'. The miracle happened, to the amazement of the provost.

(31) The courtyard of the provost's house. St. Anthony blesses the little pig, and the provost's servant turns to speak to his master (pl. VIII, 3).

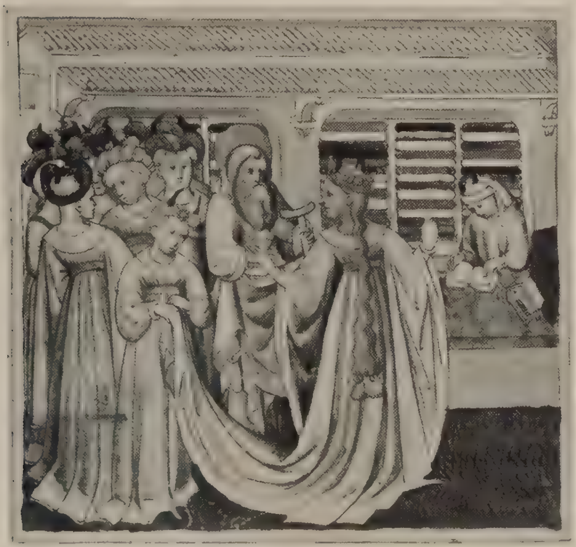
The provost took St. Anthony to the palace. He was welcomed by the king, and he expelled the devils from the queen, the prince, and the princess, and cured others of their diseases. The devil soon arrived disguised as a monk and began to work amazing miracles, and the people thought he was a holy man. St. Anthony feigned a headache and asked the devil monk to touch his head, but he was frightened to come near the saint. Whereupon St. Anthony blew in the devil monk's face, and fire burnt his hair, beard, eyebrows, and all his clothes. He cried out in a loud and terrible voice, and a host of devils appeared and fought St. Anthony for three days and three nights. 'Be off, old man,' said the devils, 'you cannot resist all of us,' but St. Anthony held out and St. Michael appeared in a feathered dress with great wings and gave St. Anthony a flaming sword, and the devils fled.



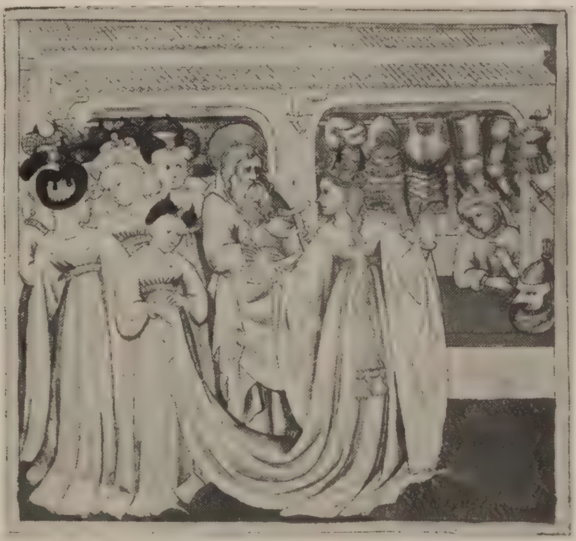
1. St. Anthony led to the street of the moneychangers



2. The street of the apothecaries and grocers



3. The street of the cloth merchants



4. The street of the armourers

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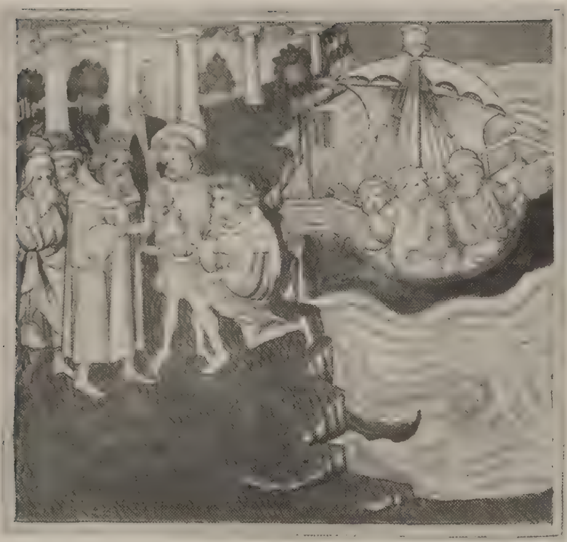
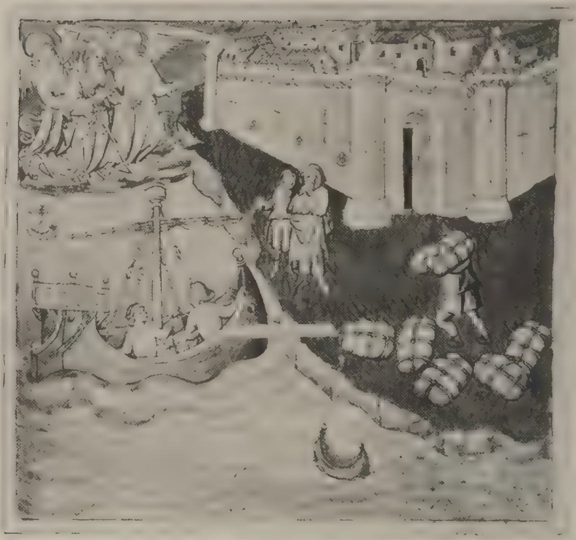
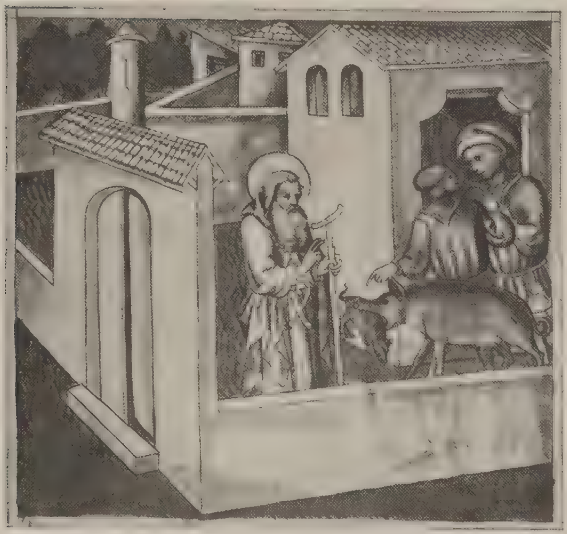


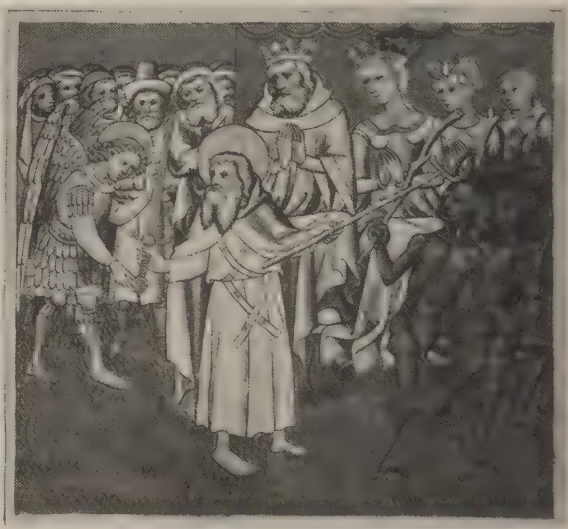
1. The king of Catalonia sends messengers to St. Anthony in Egypt



2. St. Anthony transported by angels to Barcelona



3. The miracle of the healing of the little pig by St. Anthony



4. St. Anthony defeats the devils with St. Michael's sword

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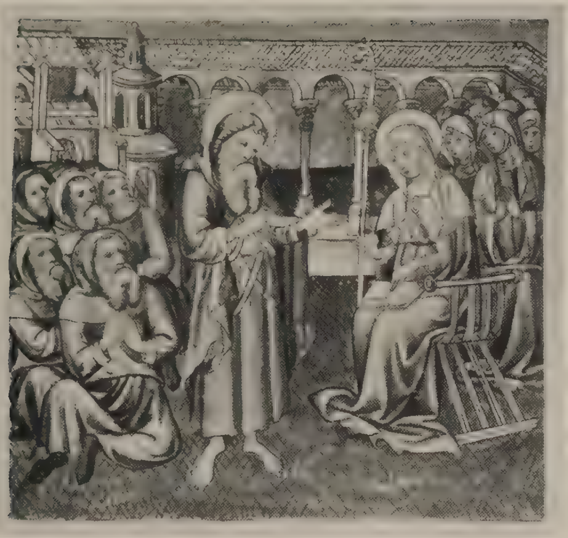
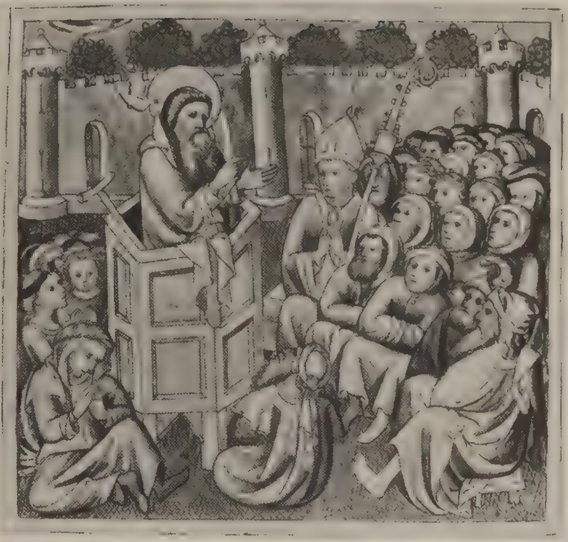
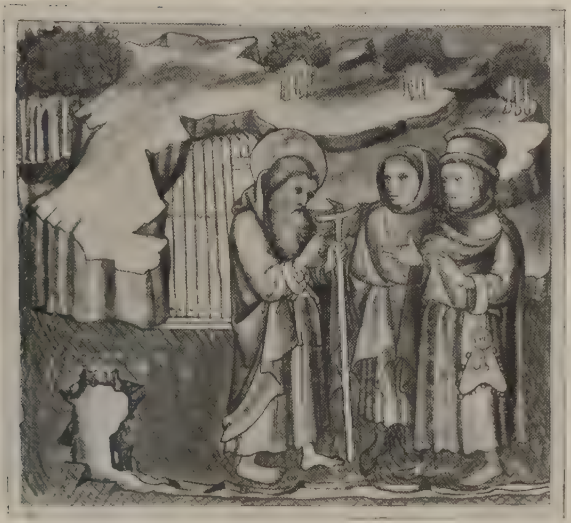


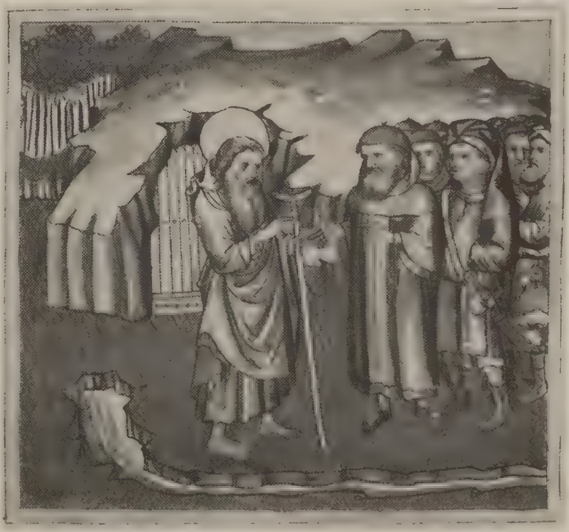
1. St. Anthony's visit to a nunnery



2. St. Anthony preaches against the Arians in Alexandria



3. St. Anthony answers the Greek philosophers



4. St. Anthony questions the learned men

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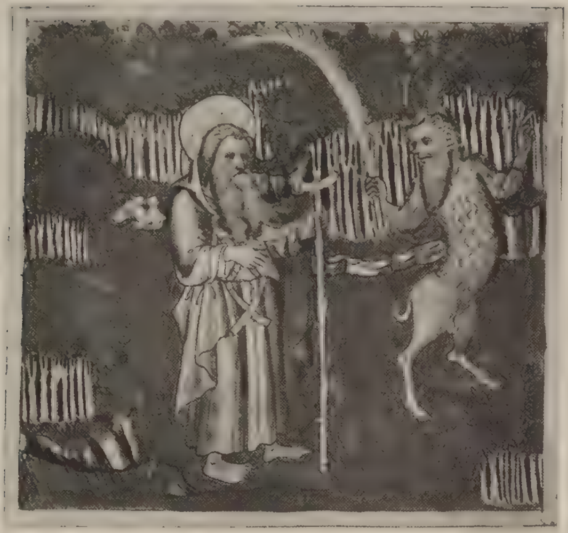
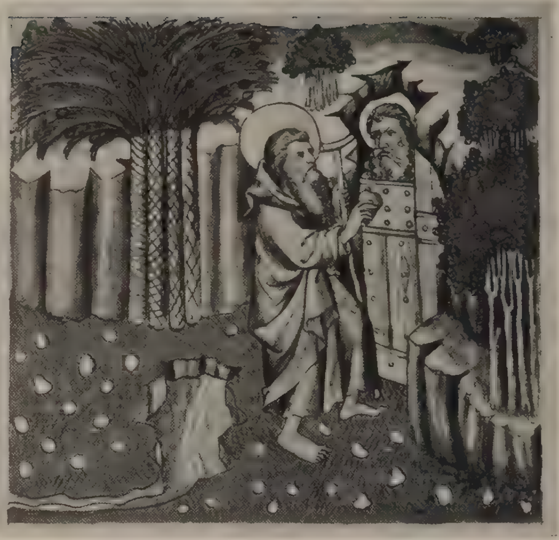
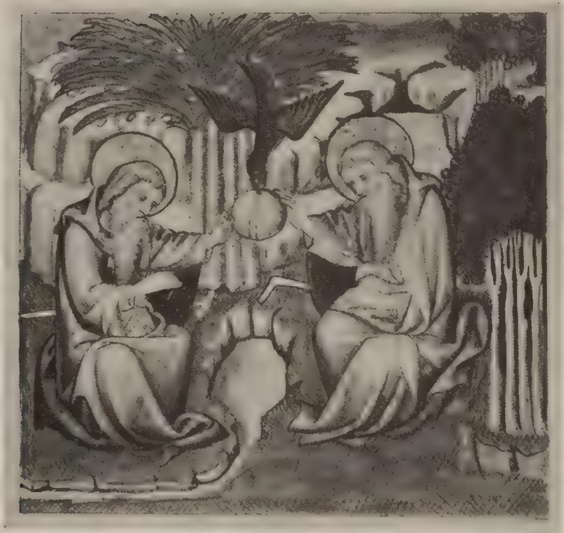


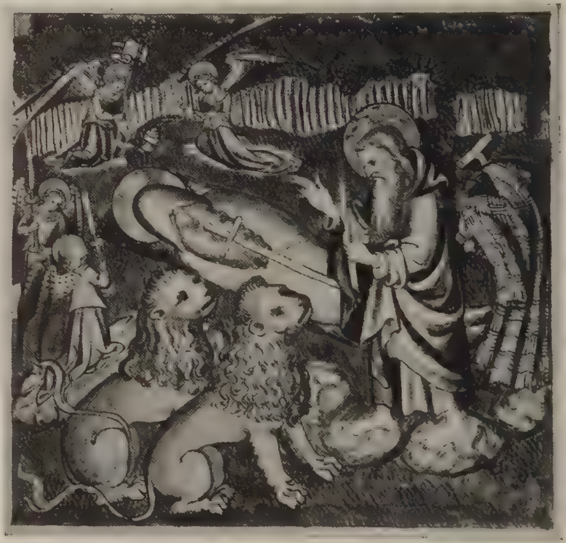
1. St. Anthony meets the satyr



2. St. Anthony knocks at the door of St. Paul's cell



3. St. Anthony and St. Paul divide the loaf



4. The burial of St. Paul by St. Anthony

Published by the Society of Antiquaries of London, 1933

(32) A space in the palace at Barcelona, in which the king, queen, princess, and prince are seated: they and the crowd look on at the fight. Four devils armed with clubsticks assail St. Anthony, who wards off a blow with his staff as he turns to take the flaming sword from St. Michael. It is an arming sword with wheel pommel, quillons drooping at the ends, and a *tassette* (lappet) in the centre (pl. VIII, 4).

St. Anthony stayed a year and eight months in Barcelona, healing the sick and teaching the people until they were strong in the faith of Christ, and all the time he spoke the French tongue. Then he returned on a cloud to Egypt.

Soon afterwards he went to visit several monasteries, and he came with some monks to a nunnery; his little sister was now the abbess and they rejoiced to meet again.

(33) The church and cloister of the nunnery. The abbess is seated on an X chair, her crozier in her right hand, an open book on her knee (pl. IX, 1).

St. Athanasius and other bishops assembled in Alexandria desired St. Anthony to come to the city and preach against the Arian heretics, and he came in the summer of the year 338.[1]

(34) St. Anthony stands in a temporary wooden pulpit set up in an open space inside the city wall, preaching against the Arians under the inspiration of the Holy Spirit in the form of a dove. A bishop and a crowd of men of all ages, one with a turban, another with an oriental head-dress, are seated on wooden benches listening intently; on the other side of the pulpit a woman and young children also hear him gladly (pl. IX, 2).

So great was the influence of his preaching that pagan priests cast down their idols and were converted to the Christian faith.

(35) St. Anthony is at the monastery on the Outer Mountain, and two Greek philosophers come to prove him with hard questions. He knows them by their appearance and asks them through an interpreter why they trouble to come to a foolish man. When they answer that he is not foolish but exceedingly prudent, he says, 'If you have come to a foolish man, your labour is superfluous; but if you think me prudent become as I am . . . for I am a Christian'. And they go away marvelling. Master Robin has changed the scene to St. Anthony's cell on the Inner Mountain. The philosopher who is speaking wears a remarkable hat and carries a large money-bag (pl. IX, 3).

(36) Other learned men come out from the city to mock St. Anthony because he has not learned letters. He puts this question to them, 'Which is first, mind or letters? Which is the cause of which, mind of letters or letters of mind?' And when they answer 'Mind is first and the inventor of letters', St. Anthony says, 'Whoever, therefore, hath a sound mind hath not need of letters'. The background of this scene as compared with the last is a characteristic example of the differences which Master Robin

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[1] July 25–8, *Writings of Athanasius*, ed. A. Robertson, p. 214, note 19 A.

so frequently made on repeating the same scenes. Several of the learned men wear the close round cap of the university doctors, rising suddenly in the middle into a low blunt point. Their caps are identical with those depicted on Thomas Chandler's manuscript at New College, Oxford, *circa* 1463, and on the brass of Dr. William Hautryve, 1441, in the chapel of the College.[1] A man with a sneer has a scimitar hanging from his baudric (pl. IX, 4).

The romantic story told by St. Jerome of St. Anthony's visit to St. Paul, the first hermit, and a much older man than St. Anthony, is depicted in nineteen scenes. An angel told St. Anthony in a dream that St. Paul, more perfect than himself, had gone out into the desert long before he did, and St. Anthony set out to find him. First he met a hippocentaur, then a satyr, and lastly a she-wolf who led him to the hermitage.

(37) St. Anthony speaks to the satyr, a mannikin with hooked snout, horned forehead, and extremities like goat's feet. The creature offers him the fruit of the palm trees, and in answer to a question says, 'I am a mortal being and one of those inhabitants of the desert . . . whom the Gentiles worship. . . . I am sent to represent my tribe. We pray you to entreat the favour of your Lord and ours, who . . . came once to save the world.' St. Anthony marvels that he can understand the satyr's language, and striking the ground with his staff, he says, 'Woe unto you, Alexandria, who instead of God worship monsters . . . What will you say now? Beasts speak of Christ, and you instead of God worship monsters' (pl. X, 1).

(38) St. Paul has barred the door of his hermitage against St. Anthony, who struck his foot against a stone when he arrived at midnight after a second day's journey. St. Anthony continues knocking with a stone until the sixth hour, when St. Paul opens the door (pl. X, 2).

They embraced and sat down on the brink of the glassy stream. They noticed with wonder a raven which had settled on the bough of the tree, and was then flying gently down until it came and laid a whole loaf of bread before them. . . . 'See,' said St. Paul, 'the Lord truly loving, truly merciful, has sent us a meal. For the last sixty years I have always received half a loaf: but at your coming Christ has doubled his soldier's ration'.

(39) After some talk St. Anthony and St. Paul agree that each should seize the loaf on the side nearest to him, pull towards him, and keep for his own the part left in his hands. St. Paul is wearing an undergarment of plaited palm leaves. Master Robin has seen palm trees (pl. X, 3).

St. Paul knew that the time of his falling asleep had come, and to spare St. Anthony the pain of seeing him die he asked him to go back and fetch the cloak

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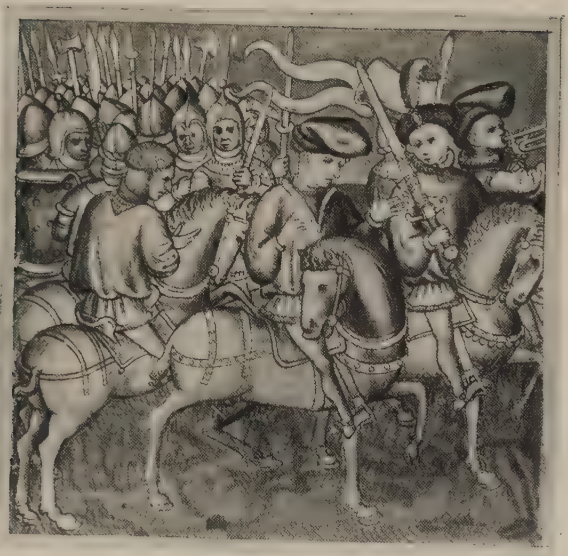
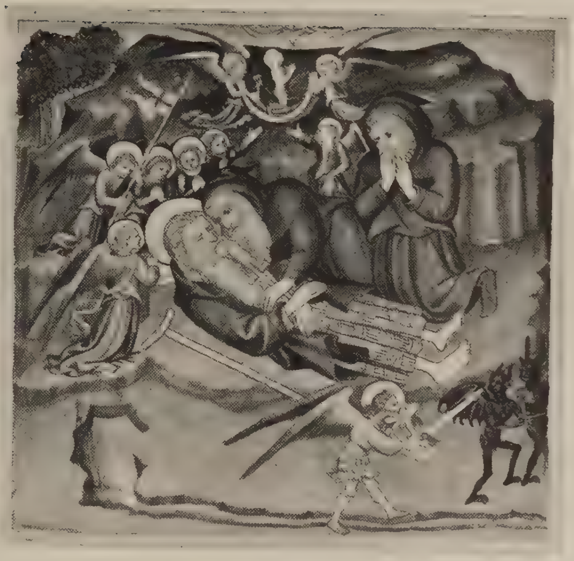
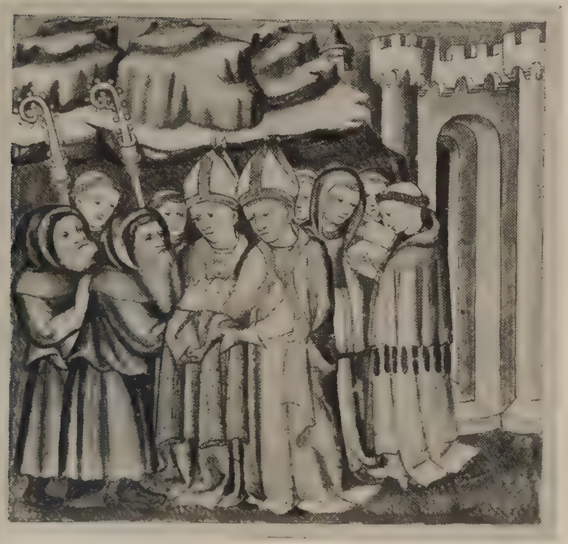
[1] E. C. Clark, 'English Academical Costume (Medieval)', *Archaeological Journal*, vol. l, pp. 184, 185, 207 (1893); T. F. Kirby, 'On some fifteenth-century Drawings of . . . New College, Oxford', *Archaeologia*, vol. liii, pls. XV and XVI.



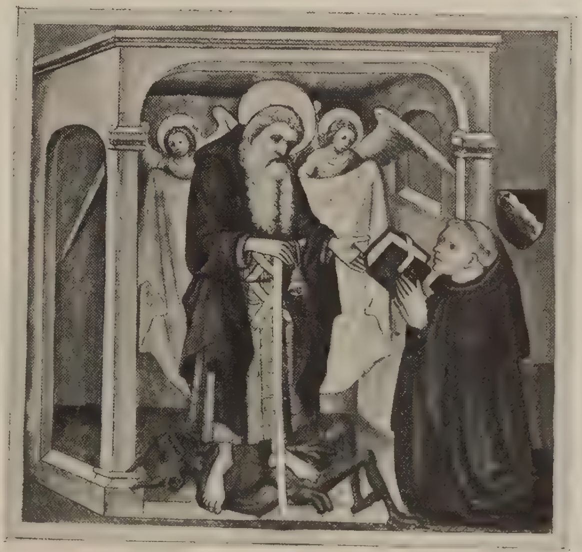
1. Balacius rides out from Alexandria



2. The death of St. Anthony



3. Two monks take the palm-leaf garment to St. Athanasius



4. The picture-book presented to the Celestial Image of St. Anthony by Guigue Robert, Grand prior of Saint-Antoine

Published by the Society of Antiquaries of London, 1933

that St. Athanasius had given him and wrap his body in it. When St. Anthony came to the hermitage again, after his long journey, St. Paul was dead, and he began to lament that he had neither pick nor hoe to dig the grave. Two lions came on the scene and pawed away the sand until they had made a space large enough to hold a man.

(40) St. Anthony has taken off St. Paul's garment of plaited palm leaves and wrapped the body in the cloak. He holds a lighted candle in his left hand, and the lions wait for his blessing. Four angels assist at the burial, two hold gold candlesticks with lighted candles, another swings a gold censer, and the fourth holds a cross with the banner of the cross attached to it (pl. x, 4).

In the last years of St. Anthony's life there were fresh troubles with the Arians. St. Athanasius told the story of the death of Balacius, a general in Egypt, which is depicted in six scenes. St. Anthony sent a letter warning him to desist from persecuting the Christians; Balacius threw down the letter and insulted the messengers. Five days later he rode out from Alexandria to Choereu, and his own horse bit him in the thigh and dismounted him; he was so badly hurt that he died three days after he had been carried back to the city.

(41) The men at arms are in bascinets with gorgets and aventails; one carries a horseman's hammer, another an *ahlspiess*, others have lances, voulges, etc.; one has a twisted orle round his bascinet, one on the left has a shield with top and bottom edges curled outwards, typical about 1420, like the horseman on Henry V's chantry in Westminster Abbey. The squire who rides by Balacius carries a sword with a wheel pommel. The musician, playing the clarion, has a great gold badge hanging from a chain round his neck (pl. xi, 1).

St. Anthony at the age of nearly a hundred and five took farewell of the monks at the monastery on the Outer Mountain, and went back to his cell on the Inner Mountain, and died soon afterwards. Two of his monks were with him, and in accordance with his last wishes they buried him in a grave and kept their knowledge of the place a secret. Their names were Macarius and Amatas.[2]

(42) St. Anthony lies dead in the palm-leaf garment which he always wore after taking it off the body of St. Paul the hermit. There are four angels at his head, one carrying the cross with a banner of the cross attached; the fourth angel and another on the right of the second monk point upwards to two angels carrying the soul of St. Anthony to heaven towards the hand outstretched in blessing. St. Michael, astride

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[1] *Circa* 345. This is the version given by St. Athanasius in his *Historia Arianorum*; in his life of St. Anthony, Balacius is bitten by the horse ridden by Nestorius, cf. *Writings of Athanasius*, ed. A. Robertson, pp. 218, 274.

[2] *Lausiac History of Palladius*, ed. E. C. Butler, vol. ii, p. 199.

the stream, and armed with shield and sword, puts two defiant devils to flight. This picture is not in grisaille but coloured (pl. XI, 2).

Just before he died, St. Anthony told the two monks to divide his garments. 'To Athanasius the bishop give one sheepskin and the garment whereon I am laid which he himself gave me new, but which with me has grown old. To Serapion the bishop give the other sheepskin, and keep the hair garment yourselves.'

(43) The two monks go to Alexandria, and one hands over to St. Athanasius the palm-leaf garment which St. Anthony had worn since the death of St. Paul. The two bishops wear copes with gold borders and fastened by gold morses, and their high mitres have gold bands. There are two crozier-bearers and four attendant priests, one of them wearing an almuce with fur tails, and another has drawn his almuce over his head (pl. XI, 3).[1]

(44) Guigue Robert, grand prior of the monastery of Saint-Antoine from 1405 to 1430, vested in purple with the blue tau-cross of the Order of Saint-Antoine on the left side of his black cloak, kneels to present this book to the celestial image of the saint who tramples on the devil. St. Anthony is wearing the palm-leaf garment and the crossed stole, and he holds the tau-headed staff and bell which are his emblems. Two angels support a canopy behind him. Near the head of the prior is his shield of arms; *azure, on a bend wavy or a tau cross azure above two stars of six points.* Underneath this picture is a long prayer to St. Anthony asking him for God's grace to serve worthily in his monastery (pl. XI, 4).

In the last picture of the manuscript in Florence the cellarer of the monastery, Jean de Montchenu, similarly presents his book to St. Anthony. His arms are enclosed in a quatrefoil with pointed intervals: they are *gules on a bend engrailed argent between two tau crosses azure, an eagle displayed of the last.*

It is likely that the pictures of Guigue Robert and Jean de Montchenu were portraits which began to be painted about this time. The portrait of John Siferwas, a Dominican friar of Guildford, presenting the lectionary which he had painted about 1410 to Lord Lovel, is a well-known English example in the British Museum.[2]

Prior Guigue Robert gave the picture-book to the monastery with the condition that it should never be taken out of the church; and there can be little doubt that it remained in the sacristy until 1562, the year of the first troubles with the Huguenots, and was removed by the canons with other treasures including the inner shrine with the relics of St. Anthony before the pillage in June.[1] In 1567, the year of the second troubles, the buildings of the monastery were ruined by Huguenot soldiers and the roof of the church was set on fire; but the canons had previously put ornaments and documents in safe custody in the house of a leading inhabitant, the Sieur de Miribel.[2] Three Huguenot captains broke in and carried off four chests of papers which were lost. The picture-book was concealed from them, and the grand prior of the monastery, Gratien des Goys (1571–94), made a note on the fly-leaf that on 19 February 1584 Madame de Miribel handed back to him the book which had been lost to the church since the first troubles. A later note on the fly-leaf records that it found a place in the sacristy once more in 1636. The leaves were trimmed probably when the book was bound in leather between 1680 and 1700. A note was written inside the cover—'Ex libris domus abbatialis S. Antonii Viennensis Catal. Inscript. anno 1742' with a press mark ɿɿ°32. It remained at Saint-Antoine until it was removed to Malta in 1781, and so escaped possible destruction during the French Revolution.

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[1] D. Rock, *The Church of our Fathers*, ed. G. W. Hart and W. H. Frere, p. 43, fig. 1.

[2] E. G. Millar, *English Illuminated Manuscripts of the fourteenth and fifteenth centuries*, frontispiece, and p. 33, MS. Harl. 7026 f. 4^v.

Some influences of the Picture-book

The book had an influence on other art treasures of the monastery. It was used in 1536 as a pattern by Leonard Limousin for the two enamels now in the British Museum which were executed for Abbot Antoine de Langeac.[3] The scenes are St. Anthony and the Archer, and St. Anthony and St. Paul dividing the loaf brought by the raven; and they probably belonged to a set of twelve or more.

The book was well known to the Italian engraver Antonio Tempesta (1555–1630) who adapted it in a series of thirty plates which he devoted to St. Anthony in a volume published in 1597.[4] As Tempesta was born in Florence and worked there for a time, he probably studied the duplicate book in the Laurentian Library. The catalogue of the library of Saint-Antoine no longer exists,[5] but it surely contained a copy of Tempesta's volume, for six of his plates were copied exactly for the six panels of repoussé silver on the new outer shrine for the relics of St. Anthony which was given to the monastery in 1648 by a baron of Dauphiné, Jean de Vache of Château de l'Alblenc.[6]

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[1] H. Dijon, *Le Bourg et l'Abbaye de Saint-Antoine pendant les guerres de Religion et de la Ligue 1562–97*, pp. 24–6, 38.

[2] *Ibid.*, p. 43; *Mémoires du notaire Eustache Piémont 1572–1608*, p. 577 (Société d'Archéologie de la Drôme).

[3] *Archaeological Journal*, vol. lxxxiv, pp. 393, 394, pl. IX.

[4] *Vita S. Antonii Abbatis*, six plates are missing from the British Museum copy; cf. *A. Tempesta*, ed. A. Aspland, pp. 19–21 (Holbein Society, 1873).

[5] A. Masimbert, 'La Bibliothèque de l'Abbaye de Saint-Antoine', *Petite Revue des Bibliophiles Dauphinois*, 2^e^ série, numéro 5, 1924.

[6] H. Dijon, *L'Église abbatiale de Saint-Antoine*, figs. 72–7.

The great linen cloth probably disappeared in the troubles of 1562 or 1567. In the picture-book the story ends with the burial of St. Anthony in the unknown grave, and the visit of the two monks to St. Athanasius; but the colophon conveys a suggestion that the story was continued on the pannus 'to the last burial and beyond', telling pilgrims to the shrine of St. Anthony how the relics of the saint came at last to Saint-Antoine. Some incidents of the later story are told in pictures which I intend to describe in detail elsewhere. The finding of the body of St. Anthony and the miracles attending the translation to Constantinople[1] were painted on a retable for the commandery of the Order of Barcelona about 1470 by the Catalan primitive, Pablo Vergos.[2] A picture of the school of Cologne[3] painted about 1500 for the commandery of the Order at Cologne consists of various scenes adapted from the picture-book, among them the story of the dromedaries and St. Anthony's adventures with the devil queen, and in addition several scenes of the finding and translation of the body of St. Anthony to Alexandria and Constantinople as told in the fifteenth-century manuscript at Namur. The scene of the arrival at Constantinople was painted at Antwerp in the sixteenth century.[4]

I wish to record my gratitude to Mr. S. C. Cockerell who introduced me to the study of the Valletta manuscript and has given me much help, particularly with reference to the manuscript in the Laurentian Library which I have not seen; and to the publishing committee of the Roxburghe Club for their kind permission to reproduce the photographs which were taken for them by Emery Walker Ltd. My thanks are due to the Abbé Luc Maillet-Guy who has given me much information outside his invaluable series of short monographs on the history of the Order of Saint-Antoine and its commanderies in Dauphiné; to Père H. Delehaye S.J. and Père B. de Gaiffier S.J. for suggestions which gave me a clue to the solution of several problems; to Monsieur A. Letonnellier, keeper of the Departmental Archives of the Isère, who made searches for me at Grenoble and at Saint-Antoine; to Monsieur Cl. Roux, secretary of the Académie de Lyon; to Colonel Roux, President of the Société Dauphin Humbert II; and to our Fellows Dr. Eric Millar, Professor Callender, and Mr. J. G. Mann.

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[1] *Ante*, p. 2.

[2] Sanpere y Miquel, *Los Cuatrocentistas Catalanes*, vol. ii, pls. pp. 153, 155, 157.

[3] In the Alte Pinakothek, Munich.

[4] In private possession in England.

II.—*An Examination of two Anglo-Saxon Manuscripts of the Winchester School: the Missal of Robert of Jumièges, and the Benedictional of St. Æthelwold.*

By J. B. L. Tolhurst, *Esq., F.R.Hist.S.*

I. The Missal of Robert of Jumièges

The English Sacramentary now in the Public Library at Rouen, and known by this name,[1] has been the subject of several inquiries into its origin, and various opinions have been put forward as to the place where, and the identity of the church for which, it was written.

The complete text was edited for the Henry Bradshaw Society in 1896, with an introduction by the Rev. H. A. Wilson. It had already been described by Dibdin in 1821;[2] by the Rev. F. E. Warren, who quoted long extracts from it, in 1883;[3] and more particularly its illuminated miniatures by Professor J. O. Westwood in 1858.[4] Its contents have been examined, and theories concerning it put forward by M. André Pottier in 1860:[5] by the editor of its text; by Sir Ivor Atkins in 1928;[6] and the numerous references to it by Edmund Bishop[7] show that he also had made a study of its calendar.

It has been ascribed to Winchester by Westwood and by Wilson; to Peterborough by Sir Ivor Atkins; and to Ely by Pottier; all of whom produce evidence in support of their contentions. The opinion of Edmund Bishop is best summed up in his own words: 'I do not feel able to make any suggestions as to the place where, or the particular church (if any) for which, R may have been written.'[8]

The object of the present inquiry is to re-examine the available evidence in the light of further researches, in the hope of finding a satisfactory solution to the seemingly contradictory points that have been brought to light.

There is no need to describe here the manuscript in detail; this has already been done to some extent by those who have examined it, and more completely by the Rev. H. A. Wilson in his edition of it. All that it is necessary to say now is that the manuscript for the purposes of examination may be divided into five parts.

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[1] Press mark, Y. 6.

[2] *Bibliographical, Antiquarian, and Picturesque Tour in France and Germany*, vol. i, p. 165.

[3] *The Leofric Missal*, p. 275 *et seq.*

[4] *Facsimiles of Miniatures and Ornaments in Anglo-Saxon and Irish Manuscripts*, p. 136 *et seq.*

[5] E. Frere, *Manuel du Bibliographe Normand*, vol. ii, p. 310 *et seq.*

[6] 'An investigation of two Anglo-Saxon Kalendars, Missal of Robert of Jumièges and St. Wulfstan's Homiliary', *Archaeologia*, vol. lxxviii, p. 219 *et seq.*

[7] Abbot Gasquet and Edmund Bishop, *The Bosworth Psalter*, 1908.

[8] *Op. cit.*, p. 161. It will be convenient to retain the symbol 'R' for this manuscript.

(*a*) Fol. 1–4. Six masses forming a supplement to the sanctorale (*d*) below. Folios 4 verso and 5 are blank.
(*b*) Fol. 5^{v}–24^{v}. Calendar and Paschal tables.
(*c*) Fol. 25–104^{v}. Canon of the mass and temporale.
(*d*) Fol. 105–73. Sanctorale.
(*e*) Fol. 174–227^{v}. Votive masses, prayers said in procession round the monastery buildings, offices for the visitation of the sick which include a litany, the burial service, and masses for the dead.

On folio 228 is recorded the gift of the manuscript by Archbishop Robert, whilst bishop of London between 1044 and 1050, to the abbey of Jumièges.

The manuscript dates from the early years of the eleventh century; possibly a more accurate date may be assigned to it when the various matters concerning it have been reviewed.

The points which will pass under review are these:—

(*a*) The presence of the names of certain English saints in the calendar and of their masses in the sanctorale and supplementary leaves. It will be more convenient to set these out in tabular form later.
(*b*) The presence in the prayer *Nobis quoque peccatoribus* in the canon of the mass of the names of SS. Etheldreda and Gertrude.[1]
(*c*) The collect of the *Missa de Sanctis Virginibus.*[2]
(*d*) The collect to be said at the end of the procession on entering the church which refers to its having been consecrated in honour of our Lady, and SS. Peter, Paul, and Andrew.[3]
(*e*) The inclusion in the litany of the names of St. Florentinus, SS. Etheldreda, Sexburga, Withburga, Ermenilda, and of SS. Cyneswitha, Cyneburga, and Timba.[4]

We will examine the claims of each of the places to which the manuscript has been ascribed.

Winchester

The subjoined table includes the names of the English saints entered in the calendar, together with those for whose feasts special masses have been provided in the sanctorale or supplementary leaves. The list of names has been divided into three for the purpose of making it more clear, and a few additions of foreign saints who had particular cults in England have been added for the reasons appended to each.

In the calendar of R, some entries are written in gold, and the remainder in colour. Those in gold are in uncial characters, rustic capitals, or minuscules; this differentiation appears to denote the grade of the festivals. In the table below, the symbols 'GU', 'GR', and 'GM' denote these; the presence in the calendar of the remaining feasts is denoted by the letter 'C'; 'S' denotes that the feast concerned has a mass in the sanctorale, and 'a' that the mass is to be found amongst the additional ones at the beginning of the book; 'p' in each case indicates that the mass has a proper Preface.

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[1] Fol. 29, ed., p. 47.

[2] Fol. 179, ed., p. 247.

[3] Fol. 201^{v}, ed., p. 279.

[4] Fol. 208, ed., pp. 288–9.

Winchester Saints.

15 June	Edburga.	C	—
2 July	Dep. Swithun.	C	—
8 „	Grimbald.	C	—
15 „	Trans. Swithun.	C	S
1 Aug.	Æthelwold.	GR	S p
4 Sept.	Trans. Birinus.	C	—
10 „	Trans. Æthelwold.	—	S p
18 Oct.	Justus.[1]	—	S p
30 „	Ordination of Swithun.	C	—
3 Dec.	Dep. Birinus.	C	S p
13 „	Judoc.[2]	C	—

East Anglian Saints.

13 Feb.	Ermenilda.	C	S p
17 Mar.	Withburga.	C	—
11 Apr.	Guthlac.	C	a p
30 „	Erkenwald.	C	—
17 June	Botulph.	C	a p
22 „	Alban.	C	a p
23 „	Etheldreda.	GR	S p
6 July	Sexburga.	C	—
5 Aug.	Oswald K. M.[3]	C	S p
17 Oct.	Trans. Etheldreda.	C	—
20 Nov.	Edmund, K. M.	—	S p
29 Dec.	Tibba.	GM	—

Remainder of England.

8 Feb.	Cuthman (Steyning).	C	—
13 „	Trans. Edward (Shaftesbury).	C	a p
28 „	Oswald (York).	C	—
2 Mar.	Chad (Lichfield).	C	—
18 „	Edward (Corfe).	GU	a p
20 „	Cuthbert (Durham).	GU	S p
24 Apr.	Wilfrid (York).	C	—
7 May	John of Beverley (York).	C	—

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[1] Head given to Old Minster by King Athelstan.

[2] Translated to New Minster from St. Josse-sur-Mer in 903.

[3] Included in this list because of the cult at Peterborough which arose in consequence of the translation thither of an arm.

18 May	Ælfgyfa (Shaftesbury).	C	—
19 „	Dunstan (Canterbury).	—	S p
26 „	Augustine (Canterbury).	GU	S p
4 June	Petroc (Padstow).	C	—
5 „	Boniface (Crediton)	C	—
12 July	Mildred (Thanet).	C	—
17 „	Kenelm (Malmsbury).	C	—
4 Sept.	Trans. Cuthbert (Durham).	C	—

There is a curious discrepancy between the calendar and the contents of the sanctorale. The reason for this is not by any means clear, nor is it confined to the English entries. It is probable that the omission from the calendar of the names of those saints who have proper masses is due, in part at least, to the carelessness of the scribe or illuminator. One would expect to find some mention in the calendar of the translation of St. Æthelwold, whose other feast is written in rustic capitals, of SS. Edmund and Dunstan, and also of St. Benedict on 11th July, whose masses are to be found in the sanctorale.[1]

The large proportion of Winchester feasts clearly shows a relationship with one of the monasteries of that city, but there is no clear indication in the list which would enable us to assign it to either the Old Minster or to New Minster. Nunnaminster may be dismissed from the case, since St. Edburga appears as but a minor feast in the calendar, and has no mass.

We have in British Museum Cotton MS. Vitellius E. XVIII, a calendar from Old Minster of about the middle of the eleventh century (V), and in Cotton MS. Titus D. XXVII another from Newminster of about 1030 (T).[2] Though both are somewhat later in date than R, they are of the highest importance as illustrating the feasts observed at Winchester before the Norman Conquest.

A comparison of the calendar of R with those of V [3] and T shows that

(i) All the Winchester feasts in R are to be found in both V and T, except the Ordination of St. Swithun which is not in T.

(ii) Of the East Anglian group both T and V omit SS. Withburga and Tibba, whilst T also omits SS. Sexburga and Botulph.

(iii) Of the entries relating to saints from other parts of the country six are not in V or T: SS. Cuthman, Translation of Edward, Oswald of York, Wilfrid, John of Beverley, and Mildred. One,[4] St. Petroc, is in V only. The remainder are common to R, T, and V.

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[1] Such accidental omissions are by no means uncommon. A particularly obvious example occurs in the Hyde Abbey calendar in Bodleian Gough MS. liturg. 8, from which several feasts that should have been written in gold are wanting, but there are definite indications that they should have been inserted, and one name is left unfinished.

[2] Printed in R. T. Hampson, *Medii aevi Kalendarium*, 1841, vol. i, p. 422 *et seq.*

[3] The later additions to this calendar are not taken into consideration.

[4] Neglecting St. Augustine whose omission from T can hardly have been intentional.

In each group, therefore, R shows itself to be more closely related to V than to T, and one of the feasts common to R and V, but omitted from T is a significantly cathedral feast, the Ordination of St. Swithun.

Let us turn to the foreign entries. Of these R includes seventeen which are to be found in V, but which are absent from T:

13 Jan.	Hilary.
23 ,,	Emerentiana and Macharius.
24 ,,	Babilas and three children.
14 Feb.	Valentine.[1]
17 Mar.	Patrick.
19 ,,	Joseph.
11 Apr.	Leo.
7 June	Audomar (Omer).
8 ,,	Medard.
15 ,,	Vitus and Modestus.
16 ,,	Ciricus and Julitta.
2 July	Processus and Martinian.
22 ,,	Mary Magdalene.
31 ,,	Germain.
27 Aug.	Rufus.
24 Sept.	Conception of St. John Baptist.
7 Oct.	Marcellus and Apuleus.

But of the feasts in T but not in V, only three, SS. Symeon (5 Jan.), Crispin and Crispinian (25 Oct.), and Eulalia (10 Dec.) are found in R. This again shows an agreement of R with V rather than with T, and therefore we can conclude that the calendar of R is more closely related to that of the cathedral church than to that of New Minster.

But turning to the sacramentary itself, there is on the other hand an important piece of evidence which tends to show a connexion between R and New Minster. The name of St. Gertrude occurs in the canon of the mass. Mr. Wilson has already suggested that the presence of this name may be due to the influence of a foreign sacramentary, and to one which St. Grimbald may have introduced from Flanders, whence he came, and where St. Gertrude of Nivelles was the principal local virgin saint. One fact seems to corroborate this suggestion. St. Gertrude occurs[2] in the later calendars of New Minster, after its removal to Hyde, and her feast was of the highest grade there, *Duplex festum*, about the year 1300,[3] and has proper lessons in the Hyde breviary of the same date.[4] She does not appear in any other English calendars save that of St. Wulfstan's homiliary, which calendar, as Sir Ivor Atkins has shown, is very closely related to that of R, and in another and later one from Hyde.[5]

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[1] Also St. Matthias (Feb. 24), probably an accidental omission from T.

[2] On 17 March.

[3] Bodleian Gough MSS. liturg. 8.

[4] Bodleian Rawlinson MSS. liturg. e. 1*.

[5] B. M. Harleian MSS. 960.

She may have acquired a cult at New Minster later than the date of T, because her name was already in the canon of the mass in current use there, but in any case she had no known cult anywhere else in England.

We can therefore say that, whilst the calendar is more closely related to the cathedral church than to New Minster, the canon of the mass seemingly points in the other direction. So also does the presence of a mass with proper preface of St. Justus in the sanctorale. On the evidence so far reviewed, therefore, R as a whole has strong affinities with Winchester, but it cannot be assigned definitely to either of the two monasteries of that city.

On the other hand Edmund Bishop stated that in his opinion the number of Winchester feasts R contains is not satisfactory, still less cogent, evidence of its connexion with Winchester.[1] Following this suggestion we find the following feasts are found in T and V, but are absent from R:

English.

9 Jan.	Trans. Judoc. (Newminster).
19 ,,	Branwalator (Brelade, relics at Milton).
10 June	Dedication of Newminster.
7 July	Hedda (Winchester).
18 ,,	Trans. Edburga (Winchester).
8 Oct.	Iwigius (Wilton).
10 ,,	Paulinus (York, Rochester).
23 ,,	Æthelfleda (Romsey).
4 Nov.	Brynstan (Winchester).[2]

We have in this list five specifically Winchester feasts and three more connected with the neighbourhood; one only, St. Paulinus, has no apparent connexion with that city. These eight might be described as the lesser feasts of Winchester.

Foreign.

30 Jan.	Batildis.
22 Apr.	Invention of St. Denys.
2 May	Athanasius.
25 July	Christopher.
21 Oct.	Hillarion.
31 Nov.	Oblatio Marie.
1 Dec.	Crisantus and Daria.

In addition to these it may be mentioned that St. Bartholomew is placed on 24 August in both V and T, but on the following day in R.

It has already been shown that the calendar of R is more closely related to that of V than T, but of the feasts entered in V but not in T we have still more that are not to be found in R:—

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[1] *Op. cit.*, p. 161.

[2] In addition to these feasts T and V both insert St. Elphege (19 April) and the Conception of our Lady (8 Dec.), but both of these are of later introduction than the calendar of R.

English: (31 July) Cuthburga, (3 Nov.) Trans. Edith, and (10 Dec.) Oct. Birinus; the last of Winchester and the other two from neighbouring counties. *Foreign:* (27 Jan.) John Chrysostom, (15 Mar.) Longinus, (9 June) Columkille, (22 July) Wandrille, (26 July) Anne, (6 Oct.) Faith and Mark, (23 Oct.) Romanus, (25 Nov.) Catherine,[1] (26 Nov.) Linus.

But not only does R omit these lesser Winchester feasts and a few others of that locality, as well as the foreign ones enumerated above, but includes groups of both English and foreign saints as set out below which are not found in the Winchester calendars. The asterisk (*) prefixed to some of the entries indicates that they are also to be found in another Anglo-Saxon calendar which will be referred to later.

English.

8 Feb.	Cuthman.
13 „	*Trans. Edward.
28 „	*Oswald of York.
17 Mar.	Withburga.
24 Apr.	*Wilfrid.
7 May.	*John of Beverley.
12 July	*Mildred.
29 Dec.	Tibba.

Foreign.

2 Jan.	Isidore.
3 „	*Genovefa.
19 „	*Marius and Martha.
26 „	*Polycarp.
10 Feb.	Sother.
11 „	Radegunda.
27 „	Invention of the head of St. John Baptist.
3 Mar.	DCCC Martyrs and Adrian.
9 „	*XL Martyrs.
30 „	Ordination of Gregory.
1 Apr.	Borontus.
9 „	*Mary of Egypt (*on 2nd).
20 „	*Peter, Deacon.
9 May	*Trans. Andrew.
13 „	*Dedication of the church of St. Mary (Pantheon).
30 „	*Felix, Pope.
21 June	Apollinaris.
7 July	*Marina.
19 „	*Cristina.
28 „	*Sampson.

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[1] Probably an accidental omission from R.

23 Aug.	Timothy and Apollinaris.
31 „	Paulinus of Treves.
23 Sept.	*Tecla.
25 „	*Firmin.
5 Oct.	*Cristina.
26 „	*Amandus.
1 Nov.	Cesarius.

This points to the probability that R is not a Winchester book, but one from a church considerably influenced by Winchester. The evidence from other parts of the book supports this conclusion. The litany includes no Winchester saints at all. The collect for the *Missa de Sanctis Virginibus* refers to their bodies resting in the church, but neither Old nor New Minster enshrined any. It follows, therefore, that R could not have been written at Winchester, but in some monastery intimately connected with either or both of those of that city.

Next in number to the Winchester feasts are those connected with East Anglia, and of those in R but not in the Winchester calendars many, as indicated by the prefixed asterisk in the above lists, are to be found in the early eleventh-century calendar of the Bury Psalter.[1] These indications point to East Anglia as the provenance of the book, but it cannot have come from Bury, since that monastery was not founded till 1020, some years after R was written. The inclusion of the names of the Peterborough saints in the litany and of St. Tibba in the calendar would point to that monastery, whilst the presence of St. Etheldreda in the canon of the mass indicates Ely as the monastery in which R was written.

Peterborough

The attribution of the manuscript to Peterborough rests mainly upon three points: St. Tibba in gold minuscules in the calendar, the names of four saints in the litany who were particularly venerated there, and the indication in the collect to be said at the entrance to the church that it was written for use in one dedicated to our Lady, SS. Peter, Paul, and Andrew.

St. Tibba was translated from Ryhall on the same day as the bodies of her kinswomen SS. Cyneburga and Cyneswitha were brought from Castor to Peterborough. These translations took place under Abbot Ælfsi on April 6, 1006. There are objections to the entry of the name of St. Tibba alone on 29th December in the calendar being accepted as evidence of the Peterborough origin of R. In the first place, since these three saints were translated on the same day, and the feast thenceforward being celebrated on that day at Peterborough, it seems natural to expect that SS. Cyneburga and Cyneswitha would also find a place in the calendar, even if not in the sanctorale: they have no place in either. Secondly, the anniversary of the death of St. Tibba is 13th December, and therefore one would expect to find her name on that day in the absence of any reference to her translation. There is conclusive evidence that the monks of Peterborough were aware of the date of the anniversary of her death, for we find in the ordinale[1] of that monastery: (*In festo*) *Lucie virginis et martiris ad utrasque vesperas et ad matutinas* (lauds) *et ad missam maiorem: unus cereus accendetur ante feretrum sancte Tibbe, quod feretrum situm est a parte aquilonis et a parte sinistra sancte Kyneburge quia in illo die sit depositio sancte Tybbe cuius ossa ibi in feretro conduntur. Et ideo predictus cereus non ob reverenciam sancte Lucie. ibi accenditur set ob reverenciam sancte Tybbe causa predicta.* The feast of St. Lucy is 13th December. This manuscript is dated 1371, but, as the date of the deposition of St. Tibba was known to the Peterborough monks then, it seems highly improbable that it was not as well known to them at the time of her translation.

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[1] Vatican MS. Reginensis 12.

The names in the litany connected with Peterborough are SS. Florentinus in the series of martyrs, and the three virgins, Cyneburga, Cyneswitha, and Timba (Tibba), who occur at the end, and are separated from the other English virgins by St. Petronilla. The greater part of the relics of St. Florentinus were purchased by Abbot Ælfsi from the monks of Bonneval, and were brought to Peterborough about the year 1016. His name occurs in the later Peterborough calendars on 27th September, but there is no other mention of him in R. The three virgins occupy the last places in the litany, and do not stand at the head of the English virgins as one might expect in a litany written for use in the church where they were particularly venerated. The inclusion of all four names may point to Peterborough influence, or be but the record of interest taken in the affairs of that monastery by a neighbouring one, and it should be noted that the three virgins appear in the calendar of the eleventh century from Croyland.[2] Their inclusion in the litany of R is therefore not conclusive evidence that the book was written for Peterborough. The collect said at the entrance to the church indicates that it was dedicated to our Lady as well as to SS. Peter, Paul, and Andrew, but Peterborough was dedicated to the three apostles only. It is, therefore, impossible to draw any definite conclusion from this. Nor can the collect of the mass of virgins be cited, since it indicates that more than one virgin saint rested in the church, but as already pointed out, SS. Cyneburga and Cyneswitha find no place in either calendar or sanctorale: very unlikely omissions if the mass had reference to them.

From these facts, though there is reason to see at least an interest in

[1] Lambeth Palace MS. 198a, fol. 166v.

[2] Bodleian Douce MS. 296.

Peterborough, the entry of St. Tibba on the wrong day, and the complete lack of evidence of the observance of the feast of the translation of the other two ladies would seem to rule out the possibility of R having been written there.

Ely

The manuscript has been assigned to Ely chiefly on the ground of the inclusion of St. Etheldreda in the canon of the mass: a piece of evidence of the highest importance. The explanation of this put forward by Mr. Wilson,[1] that the introduction there of her name was due to a desire to balance the mention of a foreign virgin saint, Gertrude, by the insertion of an English one, does not seem to be adequate. There are other reasons for ascribing the manuscript to Ely. Four of her saints are mentioned in the litany, where they occur higher up than the Peterborough ones, SS. Etheldreda, Sexburga, Ermenilda, and Withburga: the first three abbesses of Ely, and the last, a younger sister of St. Etheldreda, was translated thither from Dereham in 974. All four are also included in the calendar, and there St. Etheldreda is written in gold rustic capitals on 23rd June, and her translation is also inserted on 17th October. Both SS. Etheldreda and Ermenilda have proper masses in the sanctorale, each of which has a special preface considerably longer than that for any other English saint.

The *Missa de sanctis Virginibus* already mentioned is distinct from the two which precede it under the heading of *Missa quorum reliquiae in aecclesia continentur*, and therefore must relate to relics of more special importance. The collect reads :—*Fragilitatem nostram quesumus omnipotens domine perpetuo sustenta munimine . et per gloriosa sanctarum uirginum merita quarum corpora in presenti requiescunt aula tribue nobis mundane lucis prosperitatem . et aetherie beatitudinis recompensationem . per.* In other churches reposed the bodies of several virgin saints such as Barking and Romsey, but in no case are the names of more than one, if any, of them to be found in either calendar or sanctorale of R. This collect in fact can only refer to the Ely saints, and if further proof be needed it is to be found in a later Ely book. In the calendar of the late twelfth century [2] has been added, early in the next century, on 15th October, *Commemoracio Sanctarum Virginum Elyensium*, the office for which is to be found in the Ely breviary of about 1275.[3] The collect is but a revised version of that for the mass in R :—*Fragilitatem nostram quesumus omnipotens deus perpetuo sustenta munimine . et per gloriosa sanctarum merita . quarum corpora uel reliquie in presenti requiescunt ecclesia tribue nobis uite presentis prosperitatem . et perpetue claritatis felicitatem.*

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[1] Edn., p. xxxviii.

[2] B.M. Arundel MS. 377.

[3] Cambridge University Library, Ii. iv. 20. fo. 265.

The distinction accorded to the Ely saints, St. Etheldreda in the canon of the mass, her feast in gold rustic capitals in the calendar, her mass and that of St. Sexburga both having unusually long prefaces, all four names in the litany and calendar, and the collect which cannot refer to any other church, and found, though in a revised form, in a later Ely book, can only point to the conclusion that the manuscript is a sacramentary of Ely.

There still remain a number of points which require explanation and the construction of a theory which may account satisfactorily for the more important of them. For this we must turn to the history of the early days of Ely as refounded by St. Æthelwold in 970.

To found a new monastery it is essential that a body of professed monks be sent to it to form the nucleus to which others may be attracted and eventually absorbed into the community. We know that St. Æthelwold followed this procedure in the case of New Minster, into which he introduced monks from Abingdon to replace the secular clergy in 965. It was inevitable that he should follow the same procedure at Ely in 970, and we know that he placed Brithnoth, prior of Old Minster, over the community as abbot, in all probability sending others from Winchester with him. It does not follow that the whole of the original nucleus came from one monastery; Bury, for example, was founded jointly from Ely and Holm in 1020, and there is an indication that some, at least, of the original Ely community probably came from New Minster.

The Liber Vitae of New Minster gives a list of the early monks of Ely, and another of those especially commemorated at New Minster.[1] This latter list is headed *Nomina fratrum ueteris cenobii Wentane ecclesiae sub protectione domni sancti petri apostoli deo inibi seruientium*, and has been held to include only names of those associated with the Old Minster. But after the first twelve names, all of bishops, is written another heading, *Isti quoque specialiter se deuouerunt*, which dissociates the names which follow from those entered above it, although they are numbered consecutively. The list is of the names of those then dead who were especially commemorated at New Minster, and it continues after the second heading with the names of three persons, none of whom was a monk of Old Minster: Vulmar, abbot of Ghent; Osgar, abbot of Abingdon; and Germanus, abbot of Ramsey. The list is, therefore, not confined to monks of Old Minster. It includes seven names, in addition to Brithnoth, the abbot, which are found amongst the first thirteen of the Ely list, and in each case of similar rank: Leofsige, Beornwig, Godeman, Cynewine, Ælfgar, and Ælfsige, priests, and Æthelmær, a deacon. This suggests that the reason for their inclusion in the New Minster list was because they were originally monks of that house, and later formed the nucleus, or part of it, for the new foundation at Ely. They would naturally take with them the necessary service books, without which they could not carry out the services of the church, and thus the presence of a New Minster Sacramentary at Ely is easily accounted for.

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[1] *Register and Martyrology of New Minster and Hyde Abbey.* Ed. W. de Gray Birch, London, 1892, pp. 22 *et seq.*

From time to time this sacramentary would have additions made to it on margins or flyleaves, as those masses written on the first leaves of R, two of which relate to a saint whose feast was ordered by the Witan in 1008, and three others are of more importance locally at Ely than at Winchester. The book would be copied, and these additions worked into their proper places, and so would be localized by the adoption of feasts of general observance in the neighbourhood. Hence the addition of some foreign saints, the names of many of whom are to be found in other East Anglian calendars. At the same time the calendar would be pruned of those feasts which had dropped out, and others of observance purely local to the place whence the original manuscript came, such as the minor Winchester ones already mentioned. This process would be repeated as alterations multiplied, and the wear of a book in constant use would require it.

But such bringing up to date would not account for St. Tibba by herself, and on the wrong day, in an Ely book. There is a possible explanation of the presence here. If the scribe writing the calendar of R had before him to copy a corrected version of such an one as that from Winchester in Cotton MS. Vitellius E. XVIII, with which it shows some affinity, and in which are entered the Egyptian months, he might very easily, especially at a time when the just completed or impending translation of St. Tibba would be a topic of conversation, mistake the note of Tybi on 27th December for Tybba, and accordingly insert her name on the first available day, 29th December, and quite possibly as a feast of some minor importance, such as the gold minuscule seems to imply.

On the other hand, there are still a proportionately large number of Winchester feasts retained. With the aid of a series of Ely calendars[1] and the breviary already cited, we are able to follow these cults. SS. Edburga, Justus, the Ordination of Swithun, Grimbald, and Judoc, disappeared before the end of the twelfth century. The others remained, and in the fifteenth century SS. Swithun and Birinus were observed as feasts with twelve lessons. St. Æthelwold, transferred to 2nd August because his feast coincided with St. Peter *ad vincula*, with the high grade of *Duplex*, and his translation *In albis*. The translation of St. Birinus was kept as a feast with three lessons, but that of St. Swithun had been to some extent overshadowed by the octave of the translation of St. Withburga.

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[1] Trinity College, Cambridge, o. 2. 1 late twelfth century; B. M. Arundel MSS. 377, *c.* 1176; Harl. 547 early fourteenth century; Additional 33381 fifteenth century.

Mr. Wilson has suggested that the entry of St. Æthelwold on 1st August in gold rustic capitals in the calendar of R may be due to the fact that it is on the same day as *Ad vincula St. Petri apostoli*, but since both his feasts are provided with proper masses, the only English saint with two in the original part of the book, it would appear that his deposition on 1st August would be observed as a feast of high rank, and is therefore entered in gold quite independently of St. Peter, and in fact this feast later received an octave.

There are a few minor points which one might expect to find in an Ely book which are not in evidence in R.

There is no mass for the translation of St. Etheldreda, and the entry in the calendar indicates a feast of but little importance. She was twice translated: by St. Sexburga in 695, and again with SS. Sexburga, Withburga, and Ermenilda in 1106. Both translations took place on 17th October, but it was not until the second that the feast became an important one.[1]

There is no mention of St. Ercongotha in R. Her feast occurs on 21st February, and is found in later calendars, the latest in date of which gives her a feast with three lessons. Her name does not appear in the calendar in Trinity College, Cambridge, MS. O. 2. 1 of about 1150, nor is there any mention of her in the breviary of a century and more later. It would seem that her feast was not observed at Ely until at least two centuries after R was written. Except that her mother was St. Sexburga she had no connexion with Ely, and lived a nun abroad with her half-sister, St. Sæthryth, at Faremoutier-en-Brie, and died there.

St. Werburga is also absent from R. She was the daughter of St. Ermenilda and at one time a nun at Ely, but her name does not appear in the calendars until later,[2] and neither she nor St. Ercongotha probably appeared until after the translation of their relatives in 1106 gave the impetus to the family cultus that culminated in the multiplication of their feasts and commemorations which we find in the later books.

Since the litany includes St. Florentinus, who is probably to be identified with the saint whose body was brought to Peterborough, and also the names of the three ladies translated in 1006, it may have been copied from a Peterborough book. Alternatively it should be noted that SS. Cyneburga, Cyneswitha, and Timba (Tibba) are separated from the other English names by that of St. Petronilla. This probably indicates nothing more than that these names were added in the margin to an already existing litany from which that in R was copied, and with St. Florentinus received this small memorial at Ely.

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[1] Her feast on 23rd June is found in the calendars of the Bosworth Psalter, Arundell MSS. 60 and 155, but not her translation.

[2] The name of St. Cuthburga, one time a nun at Barking and later Abbess of Wimborne, is not entered in the only known calendar of Barking which is dated 1404. Univ. Coll., Oxford, MS. 169.

The collect which may refer to the dedication of the church does not agree exactly with either Peterborough or Ely. The latter was dedicated to our Lady and St. Peter. That St. Paul should have become attached is not very remarkable, and St. Andrew shows signs of having a particular cultus in R. These three apostles alone have octaves, and there is a mass for the Octave of St. Andrew though no mention in the calendar. But one uncommon entry does occur on 9th May *Translatio Sancti Andree apostoli* and that in gold minuscules, and his mass on 30th November, like those of SS. Peter and Paul, has a full-page illumination and the first leaf of the mass itself written in gold. These facts seem to indicate some special devotion to him at Ely, and may account for his name appearing in the collect as a minor patron of the church. On the other hand it may be nothing more than an example of the failure to adapt the collect correctly from a New Minster example which would contain the names of our Lady, SS. Peter and Paul to whom that church was dedicated by Archbishop Plegmund in 903. But be these as they may, they are minor points as compared with those which show that the Ely origin of the manuscript can hardly be doubted.

The date of the manuscript

Sir Ivor Atkins has already suggested that the discrepancies between the calendar and the sanctorale indicate that they may not be of the same date. Moreover it has been shown that the calendar is probably based upon an Old Minster original, but the sacramentary appears to have had as an ancestor a New Minster book. This combined ancestry might be responsible for the omission of certain feasts for which masses are provided, but which might not have appeared in the original calendar from which that of R was compiled.

The manuscript as it now is cannot be later than 1050, since it was given to the Abbey of Jumièges by Archbishop Robert whilst Bishop of London, and he became Archbishop of Canterbury in that year. The paschal tables begin with the year 1000 which shows that it cannot have been written before that date. There is no mention of St. Alphege who was martyred in 1012. The feast of St. Edward was enjoined by the Witan in 1008, but since he was regarded as a martyr as early as 1001, and was the son of King Edgar whose obit is entered in the calendar of R on 8th July, and was much concerned with the refounding of Ely in 970, it is quite probable that he would find a place in an Ely calendar before his feast was ordered for general observance. This might also explain his entry in the calendar being in gold. These indications go to show that the calendar was probably written during the first twelve years of the eleventh century, and if the possible explanation of the error concerning the entry of St. Tibba on the wrong day be considered reasonable it may serve to indicate a more precise date, for such a mistake might easily have been made in 1006 or the following year.

The sacramentary has the appearance of having been written somewhat later. The litany cannot be earlier than 1016 if St. Florentinus is the saint whose relics were taken to Peterborough in that year. The six masses at the beginning are probably later still, but, since there is no mass of St. Alphege, probably not later than 1023 when his cultus greatly increased in consequence of his translation to Canterbury in that year.

It is impossible, therefore, to give an exact date to the manuscript as a whole, but none of it appears to be earlier than 1006 or later than 1023.

II. The Benedictional of St. Æthelwold

It was the considered opinion of Professor Westwood that the missal of Robert of Jumièges proceeded from the same scriptorium as the benedictional of St. Æthelwold. In view of this statement, we will re-examine the latter book.

The manuscript, now in the library of His Grace the Duke of Devonshire, has twice been edited; by John Gage, F.R.S., who printed its text with an introduction and outline engravings of all its illuminated miniatures in 1832,[1] and with photographic facsimiles of the whole and an introduction by Sir G. F. Warner and the Rev. H. A. Wilson for the Roxburghe Club in 1910. References to it have been made by most of the writers upon the subject of Anglo-Saxon manuscripts.

It is known from the dedicatory inscription that one Godeman was responsible in some way for the manuscript, but it is not clear exactly what part he took in its production: he may have written the whole or only the inscription, but it is more generally supposed that he was responsible for the whole manuscript. Godeman has been identified by Gage with the Winchester monk and chaplain to St. Æthelwold who was subsequently appointed by him abbot of Thorney.

St. Æthelwold was consecrated to the see of Winchester on 29th November 963, and died on 1st August 984. The book, therefore, was written within these two dates. Mr. Wilson has pointed out that the prominence given to St. Swithun indicates that it was probably written after his translation by St. Æthelwold on 15th July, 971, and it has been assigned to a date between 975 and 980.[2]

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[1] *Archaeologia*, vol. xxiv.

[2] E. G. Millar, *English Illuminated Manuscripts from the Tenth to the Thirteenth Century*, 1926.

The accepted date for the foundation of Thorney and the appointment of Godeman as abbot is 973. Therefore if he wrote the book at Winchester he must have done so between July 971 and at latest the end of 973. But he was chaplain to a very active bishop and would have accompanied him in his travels, and would therefore have had but little time or opportunity to execute such a work. On the other hand if the manuscript was written after 973 Godeman was not at Winchester but at Thorney. There are three possibilities involved here. Either that the book was not written at Winchester, or that the identification of Godeman with the abbot of Thorney is incorrect, or, thirdly, that both suppositions are wrong.

Apart from the name of the writer the evidence of the book itself is of two kinds, its liturgical contents and its illuminations. The former is not decisive; the book includes the benedictions for the feasts of two English saints only: *In natali sancte Ætheldrythe perpetue uirginis* and *In natali sancti Swithuni*. The former would connect the book with Ely, the latter with Winchester.

The illuminated miniatures represent a number of saints in addition to scenes connected with the life of our Lord, each facing the benediction for the feast concerned. In addition to these there are at the beginning of the book a series of groups. The first, entitled *Chorus confessorum*, shows three figures in the foreground and four more behind. Those in front are inscribed *Sanctus Gregorius presul*, *Sanctus Benedictus Abbas*, and *Sanctus Cuthberhtus antistes*. All wear a type of three-pointed crown. The *Chorus virginum* occupies two pages, the verso of the first and recto of the second folios. The first or left-hand half shows seven figures, all unnamed. The other portion has six figures, three behind and three more in front. Of the figures in the foreground the central one and that on the left have elaborate nimbi and are richly clad, whilst all others are much more simply clad and wear the three-pointed crown similar to those worn by the confessors. Each of the two elaborately vested figures holds a book upon which is written her name. The central figure *Sancta Maria* (*Mater Christi*)[1] and the other *Sancta Ætheldretha*. Each of the next four pages has three unnamed figures with nimbi, which are doubtless intended for a '*Chorus apostolorum*'. The central figure of the last group is certainly intended for St. Peter who bears two huge keys and a cross in his right hand, and is tonsured. This figure is much more richly dressed and is given a more elaborate nimbus than the others.

The opening words of the benedictions for the chief feasts are surrounded by magnificently illuminated borders, and on the opposing page, and in each case of similar design, like borders surround the full-page miniatures. These borders are of two types, rectangular and arched, and the miniatures depict scenes or figures related to the feasts to which they belong.

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[1] Part of this is now illegible. Gage read the name as Sancta Maria Magdalena, but as Sir G. F. Warner points out there is no benediction for her feast, and the words should read *Mater Christi*.

Of the saints depicted SS. Etheldreda, Peter, and Benedict are surrounded by borders of the rectangular form, but St. Swithun by one of the arched form. St. Etheldreda has an additional enrichment in that the capital O of the first word of the Benediction encloses a miniature depicting our Lord. The benediction for the octave of Pentecost is similarly treated, but the page has no border. In comparison with the other decorated leaves those belonging to the feast of St. Etheldreda are the most magnificent in the book. This fact alone points to Ely rather than to Winchester since St. Swithun is given much less elaborate decoration.

The evidence from the illuminations may be summed up thus:

St. Etheldreda. The most ornate pages in the book; the full-page miniature depicting her bears the inscription *Imago sancte Ætheldrythe abbatissæ ac perpetue virginis*; and the only figure in the chorus of virgins, other than that of our Lady, to be named and to be depicted with a nimbus and rich clothing.

St. Swithun. A considerably less elaborate illumination and the miniature is unnamed.

St. Peter. A full-page miniature within a border somewhat similar to that around St. Etheldreda but less ornate; a special distinction amongst the apostles since he has the richest nimbus and dress, and he alone carries his symbol, the keys.

Our Lady. Depicted in several of the miniatures; has a pre-eminent place in the *Chorus virginum.*

St. Benedict. A full-page miniature within the rectangular form of border, and the chief place in the *Chorus confessorum.*

From the evidence of the amount of decorative richness bestowed upon each, the order of precedence might be described as our Lady, who, though no one miniature is so magnificently enriched as that of St. Etheldreda, would naturally precede all other saints; SS. Etheldreda, Benedict, Peter, and Swithun. The fact that the *Chorus virginum* extends over two pages, whilst that of confessors over only one, seems to indicate that the book was intended for use in a church in which a greater devotion was paid to them generally than to confessors. This is precisely what one would expect to find in an Ely book. St. Etheldreda was founder and first abbess of the original house of nuns, two other abbesses and a sister of the founder were enshrined there. The church was dedicated to our Lady and St. Peter, and as refounded by St. Æthelwold was colonized by Benedictine monks. That St. Swithun was also held in esteem is but natural since he had been recently translated by St. Æthelwold at

Winchester whence the first monks came to Ely, though naturally he was not of such account there as St. Etheldreda.

Considering these points in conjunction with what has been shown to have been the provenance of the missal of Robert of Jumièges and with Professor Westwood's opinion that both this and the benedictional were produced in the same scriptorium, we are led to the conclusion that the latter manuscript is in reality a benedictional of Ely.

There is still the question of the identity of its writer, Godeman. From the list of the earliest monks of Ely given in the Liber Vitae of New Minster, already quoted, we learn that there was at Ely in its earliest days, and therefore at the time the benedictional was written, a monk of this name. It would seem that it is with this Godeman and not the Winchester monk who afterwards became abbot of Thorney, that the writer of the book should be identified.

III.—*The Roof Bosses in the Transepts of Norwich Cathedral Church.*

By C. J. P. CAVE, *Esq., M.A., F.S.A.*

Read 17th March 1932

No account of the hundred and fifty roof bosses in the transepts has yet been put on record in print, though they present some peculiar features. The stone vaulting in the transepts was erected under Bishop Nykke after a fire in 1509. The vaulting of the cloisters and of the nave, with their series of sculptured bosses, had already been completed, and as the Provost of Eton says,[1] the bishop 'was rather put to it to find a satisfactory scheme for the transept bosses. He must have decided to supplement the New Testament portion of Lyhart's work, by filling up gaps in the life of the Virgin and of Christ. But he was not fortunate in his designer, or in his clerk of works. The former had very little invention, and did not care how often he repeated his subject, whilst the latter took no pains whatever to get the bosses put up in a rational order. Nor does the execution of the carving reflect credit on any one. The whole work, in fact, gives the impression of haste and carelessness'. The repetitions are numerous; the Flight into Egypt occurs eight times; the angel appearing to St. Joseph nine times; the Nativity three times, and there are many other repetitions. But though many of the bosses do indeed show signs of haste and carelessness there are some that are very charming little carvings.

Dr. W. T. Bensly gave an account of these bosses at the annual meeting of the Norfolk and Norwich Archaeological Society in 1893. It appears that for some months previously the Dean and Chapter had been engaged on important work in the quire and transepts, during which the covering of brown wash on the walls and roofs was removed, and this gave Bensly an opportunity, whilst the scaffolding was up, of having photographs taken of the sculptured bosses of the roof of the transepts. 'With the kind aid of Mr. C. J. Brown', he says, 'I have carefully examined all the bosses and made rough descriptive notes of them. The removal of the covering of brown wash discloses the colour and gilding with which the sculptures were richly adorned, and they appear to be in no way inferior to the nave sculptures.'

Through the kindness of the Dean of Norwich I have been able to examine

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[1] The Thirteen Hundredth Anniversary of the Diocese of East Anglia. *Official Handbook*, p. 60.

Dr. Bensly's original notes,[1] which are very full and detailed, and I have made use of them, especially in cases where a figure in a photograph may not be properly visible owing to perspective, and all mentions of colour in my paper are taken from Bensly's notes. Bensly, however, is not by any means always correct in his identification of scenes, and an examination of photographs shows that sometimes quite different identifications must be adopted, though on the whole he is fairly correct.

The subjects of these bosses are taken from the childhood and early life of our Lord, and they are practically all from the New Testament narrative. The figures are represented in some characteristic way which is repeated more or less throughout the series. Our Lord, for instance, when no longer a child, is shown as a young man, sometimes with a beard and sometimes without; He has straight golden hair, reaching to the neck where it is cut square, and a plain golden robe, with full sleeves, reaching to the ankles; the feet are bare and a golden orb is held in the left hand; this is meant for the earth, for in one case bands round the equator and from pole to equator can be made out.

Our Lady is shown in a long, voluminous, golden cloak, with red lining, open in front and showing an undergown of red; she is either bareheaded with long hair, or more often with a white veil over the head, the ends falling in folds on each side; sometimes she has a narrow ermine tippet. St. Joseph wears a long plain robe of gold, reaching to the ankles; he sometimes wears a cape of ermine or red, and a red undergarment; his hair is of the usual type described above; he wears a hat with a high red crown and a broad gold brim, though sometimes these colours vary. He carries a staff and generally has a wallet attached to his waist band.

St. John the Baptist wears a golden garment stippled to represent skins; his arms, legs, and feet are bare, and he has golden hair and beard. Sometimes he carries a book.

Most other male figures, which do not represent people of importance, are bareheaded and dressed simply in a plain robe, generally of gold, red, or green, and have the usual type of hair, generally gold. Apostles are similarly dressed but have bare feet.

One of the Magi generally wears a long robe, open in front, an ermine tippet and a crown; the other two usually have short tunics, reaching only to the knee; they wear high caps that may be meant for crowns; one of them sometimes has a white veil over his head-dress, which comes down over the ears and under the chin. Two carry covered cups, the third an open chalice-shaped cup; in one case (N.Tr. E 8)[1] one carries an open book with writing indicated by dots. In colour much gold is used for robes, crowns, horse's harness, etc., but other colours are freely used for robes and head-dresses.

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[1] In the Municipal Library, Norwich.

The shepherds are in tunics reaching to the knee, or sometimes not so low, and they have small tippets over the shoulders; one wears a hat with a high crown and a wide, rounded brim, the second a head-dress something like a Phrygian cap; the third has a low crowned hat. One of them wears high boots reaching half way up the calf, and one of them carries a bag, like a small suit case with a grip handle. The colours of head-dress, tunics, tippets and hose ring the changes on gold, red, blue, green, and brown.

The high priest and Zacharias wear a two-horned head-dress of gold, and in some cases a cope-like cloak of gold, with a turned-down collar, or perhaps it may be an almuce; they have an undergarment, no doubt intended for an alb; occasionally a dalmatic is indicated. Doctors wear fur tippets, sometimes of ermine, and long, full robes. Most of them wear high-crowned hats with broad brims; these are generally gold with red brims, or vice versa; such hats are worn by St. Joseph and by other important people besides doctors. Some doctors wear coif-like hoods, and others dark head-dresses with long pendent ends hanging over the shoulders.

Herod wears a loose golden robe, open in front, with a coloured girdle, and he has a gold crown; often he wears a tippet of ermine. Herodias wears a close-fitting dress of gold, cut square at the neck, and open in front showing the buttons of a dark under-robe; she is nearly always shown holding her dress up off the ground; she is crowned with gold and wears her hair low down over her ears in a close-set net.

Angels are usually shown in alb-like garments—white, red, or gold. Sometimes they have high crowned head-dresses with rather wide, turned-up brims; sometimes their heads are bare. But in several bosses Gabriel is shown in doublet of gold, sometimes with a narrow tippet of ermine, and sometimes he carries a mace; his legs are bare.

Soldiers have plain armour typical of the early sixteenth century, a ridged breastplate, a skirt of three or four taces, the usual arm and leg pieces, and broad-toed sabbatons.

There are several bosses which represent Christ or St. John the Baptist in the wilderness, the wilderness being represented by trees.

The bosses are small; rather rough measurements give the largest as only about 1 ft. 8 in. in diameter; many are only 1 ft., and some only about 8 in. These sizes are exceptionally small for bosses on a high vault; the photography is of course proportionately difficult.

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[1] Following Dr. Bensly the bosses are numbered as follows: N.Tr. or S.Tr. for north or south transept, C, E, or W according to whether the boss is on the central, the east, or the west line, and a number which shows the position on the line; the numbers begin with 1 at the central tower and end with 25 at the north and south ends of the transepts.

A careful examination of the bosses shows that there is some sort of order in the subjects. Beginning at the north end of the north transept, we find the story of Zacharias and the birth of St. John the Baptist; going south we come to the Nativity and kindred subjects; the Shepherds and the Magi; next Herod and the Magi, the Massacre of the Innocents, the Flight into Egypt, and the Death of Herod. This brings us to the crossing. At the north end of the south transept, we find Christ with the doctors, St. Joseph and our Lady searching, and the Finding in the Temple. The series is much broken into however, by, for instance, the angel appearing to St. Joseph, the Presentation, and the Circumcision. We next come to Christ and the Apostles, St. John the Baptist, and the Baptism in the Jordan, one picture of which, however, we find too far north, near the Finding in the Temple and the Presentation. We then come to the subject of Herod and Herodias and St. John the Baptist, together with three bosses, rather out of place, of the Marriage Feast. At the south end of the south transept we find the history of Christ at the beginning of His ministry; Christ in the ship, healing, in the house of Peter's wife's mother, etc., and so we come to the end of the series at the south end of the transept. There is thus some order, though with many irregularities and interruptions. It looks as though the bosses had been carved according to some general scheme, and had been put in place by workmen who did not realize exactly what each boss was meant to represent. But this brings us to the question whether the bosses were carved before or after they were put in place. The modern, and presumably the ancient, way was to carve the boss after it had been put in place. The boss, being a keystone, has to be let down into its position from above, and it would be very difficult to fit it accurately on to the vaulting ribs if it had been already carved. This information was given to me by Mr. E. Luscombe, clerk of the works at Exeter Cathedral; he is himself a practical carver, and has put up bosses in the manner described. Moreover, he told me that from an examination of the bosses at Exeter, which he saw at close quarters many years ago, he is convinced that they were carved after they were put in place. The same thing was told me, almost in the same words, by Mr. Adams who has worked as a mason in Norwich Cathedral for fifty-three years; he, too, has seen the bosses from quite close.[1] From his own practical experience, he says that it is just as easy to carve a boss *in situ* as it is in the workshop, and he showed me from the clerestory how exactly the joints fit between the bosses and the rest of the vaulting, a fact also evident from many of the photographs. I think then that there is no doubt whatever that the final carving was done after the boss was in place. Nevertheless I think it is possible that the central part of the boss may have been carved in the workshop, leaving the ribs to be carved after the boss was in place; this would account for the haphazard way the subjects are arranged in the Norwich transepts. It would also account for the fact that some of the designs are askew with the ribs, e.g. S.Tr. C 2, and N.Tr. C 2, C 4, and C 12. This I think only applies to late bosses on lierne vaulting; I feel convinced that early bosses were carved *in situ* in their entirety.

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[1] See also Viollet-le-Duc, *Dictionnaire raisonée de l'Architecture*, iii, pp. 267 et seq.

Various buildings are represented; the stable at Bethlehem is shown with a thatched roof and a gable end with a window; there is generally a star on the ridge or on the side of this roof. The house of St. Peter's mother-in-law on one boss has a conical thatched roof with a very small, round, dormer window in it. On several of the bosses there are arched canopies over the figures, or so they appear when looked at vertically from below, but seen from an angle the canopies resolve themselves into pediments of a building with little projecting turrets in the re-entrant angles; these have small carved foliage bosses below. This pediment generally represents the Temple at Jerusalem.

Altars are shown on several of the bosses; they are generally coloured brown, and are covered with a white cloth edged with a gold fringe.

Ships are also represented several times; most of them are purely conventional without masts or sails, but three of them show masts and yards.

Many feasts are depicted, all in the south transept; two of them, E 16 and W 16, are certainly the Marriage Feast at Cana, and perhaps C 16 is also intended for this subject, as shown not only by its position, but by the fact that there are figures which seem to be meant for the bride and bridegroom. It does not seem possible to identify C 14, but E 19 may perhaps be the supper at Bethany with Lazarus, Martha, and Mary (John xii, 2–3) since two women are shown, one on each side of Christ. Another, W 15, is perhaps Christ sitting at meat in Matthew's house (Matt. ix, 9-10) since no woman is represented. Herod's Feast is represented on C 17 and C 19. Various objects can be made out on the tables in these scenes: dishes, bowls, flagons, covered cups, loaves of bread, &c., but I cannot identify the fowls on a dish mentioned by Bensly.

To my mind the Norwich transept bosses seem to have been copied from pictures in illuminated manuscripts.

In conclusion I should like to express my best thanks to the Dean of Norwich for all the facilities he gave me when I was photographing the vaulting, and to the cathedral staff for their unfailing assistance. I am also greatly indebted to the Provost of Eton who went through the photographs with me and threw light on many doubtful subjects. I am also indebted both to the Dean and the Provost for giving me facilities for going through Dr. Bensly's papers.

South Transept

Central Line

1. The Presentation in the Temple. Our Lady carries the Infant wrapped in swaddling clothes; with her is St. Joseph; on the sinister is an altar. There are indications of a building behind the figures.

2. Christ with the Doctors. He sits on a high-backed chair with twisted gilt pillars and a red and black back, which stands on a gilt pulpit. His right hand is raised, and His left holds an open book with lettering indicated by black dots. On the dexter are two doctors, one with a ribbed head-dress and an ermine cape; he holds an open book with lettering; in front of him is another figure wearing a red cowl and cape edged with gold; he holds a closed book. On the sinister is a man in a gold tippet, over a red robe; he carries a closed book in his left hand; his right hand rests on Christ's shoulder; in front of him is a man with an ermine tippet over a gold robe, holding an open book with writing; both these figures wear dark head-dresses with ends pendent over the shoulders. All are bearded (pl. XII, 1).

3. St. John the Baptist standing between three trees; at his feet are two beasts, one white with corrugated golden horns, the other red with a long tail.

4. The Finding in the Temple. Christ, in the centre, carries a red book, and turns towards St. Joseph who looks down while leaning on his staff. Behind Christ is our Lady with a book. At the back are four other figures, two bearded and with high crowned hats; the two at the back seem to be women; one has a gold pedimental head-dress and green gown, the other a close-fitting gown and cowl-like head-dress, both red with gold squares. A building is indicated in the background (pl. XII, 2).

5. The Baptism in the Jordan. Christ stands naked with water up to His knees; St. John the Baptist, on dry land, empties a gold vase of water over His head. Three other figures stand round, one carrying a cylindrical pitcher by a handle. One figure on the sinister has a hole drilled through it (pl. XII, 3).

6. The Finding in the Temple. Christ sits with four other figures grouped round Him as in S.Tr.C 2. On His right is a man in a gold robe with long sleeves showing red lining, a red tippet, and a close-fitting red head-dress; behind Him is a man in a dark corrugated head-dress with a high crown, and a red tippet; on the sinister side is a man in a dark-green cowl and tippet, and a gold robe with wide sleeves showing red lining; behind this figure is a man in a red head-dress with gold brim, and a gold tippet. All four figures carry books, with lettering indicated. On the sinister side our Lady stands with clasped hands, and behind her is St. Joseph (pl. XII, 4).

7. The Presentation in the Temple. Our Lady, carrying the Infant in swaddling clothes, stands with St. Joseph behind her; opposite is the High Priest in a mitre, carrying a red book in his left hand and apparently some other object in his right.

Behind him is the corner of an altar. The figures stand under a canopy,[1] representing the Temple, with two little pendent foliage bosses.

8. St. Simon sitting in a boat on the water; it is gold with gold mast and yard on which is a white, furled sail. St. Simon has one hand on the mast, and with the other he holds a brown net on light-green water; he wears a red head-dress with ends pendent over each shoulder. St. John stands on land holding a gold chalice from which a serpent's head emerges; behind him is St. James with a shell on his hat, and on the extreme sinister Christ holding an orb in His hands (pl. xii, 5).

9. St. John the Baptist preaching in the Synagogue; he stands in a pulpit with one hand raised; round him are four figures, three bearded and wearing high-crowned hats, the other clean shaven and bareheaded.

10. Christ calling St. Peter and St. Andrew. He stands on dry land; on the water is a golden ship with mast, stays, and yard, and with a white sail furled on the yard; the two saints hold a net over the side of the ship; St. Peter holds a key, possibly two are intended; St. Andrew has his free hand raised and behind him can be seen part of a dark-green St. Andrew's cross (pl. xii, 6).

11. Angels with Christ after the Temptation. Christ stands in the middle with two angels on each side.

12. St. John the Baptist preaching. He stands in a gold pulpit; looking over his shoulders are two bearded figures; on the dexter is a bearded man in a two-horned head-dress, a red tippet and a gold robe with white sleeves; below this figure is a young man in a close-fitting dark head-dress and red robe with gold lozenges on it; his right hand is on an open book with lettering; his left hand shades his eyes as he looks upward at the preacher; on the sinister is a beardless man with a dark head-dress with pendent ends, an ermine tippet, and gold robe; he holds a book. Below him is a bearded man in a dark head-dress with gold rim and long pendent lappets ending in gold tassels; with his right forefinger he points to an open book with lettering, which he holds in his left hand (pl. xii, 7).

13. The Baptism in the Jordan. Christ stands bareheaded and naked, up to His knees in water; St. John the Baptist on dry land empties a vase of water over His head; behind Christ is an angel, and above, in a cloud, is a very small figure of God the Father, and just below is the Dove, of which the head is missing.

14. A Feast. Twenty figures round a table; seven have only their backs showing; all except three are bareheaded; one wears a pileus hat, another a very close-fitting head-dress, while a third, probably our Lady, has a veil with the ends falling over the shoulders; next to her, in the centre of the far side of the table, Christ places his hands on a dish on the table. One figure, two from Christ, on His right, wears bands. On the table are two pair of loaves in the form of rolls, the two rolls of each pair being joined together; there are also three dishes with some objects on them.

15. Herod leads Herodias by the hand. Behind her is a figure holding what looks like a harp. Bensly notes that the figure of Herod (which he mistakes for one of St. John the Baptist) has the right arm raised; this is now missing (pl. xii, 8).

16. A Feast, perhaps the Marriage Feast at Cana. Fifteen figures sitting round

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[1] See Introduction.

a table; seven have only their backs visible. All except two are bareheaded. Christ sits in the middle on the far side and next to Him on the left is a woman in a veil, no doubt our Lady. At the end of the table is a woman in a pedimental head-dress, and next to her a man without beard and with hair done differently from the rest; it is not the straight hair of the period but is rather 'fuzzy'; these two figures may perhaps be the bride and bridegroom. On the table are five objects, a covered cup, a cup (?), a flagon, and two dishes.

17. Herod's Feast. Herod sits in the centre on the far side; on one side is a bearded man in a red hat with an ermine brim, on the other a bearded man with a crown. There are five other figures at the table, and standing or kneeling at the centre of the near side of the table is a female figure with only her back showing; she is bareheaded and her bodice is divided down the back; she is obviously intended for the daughter of Herodias.

18. Herod marries Herodias. Herod stands on one side, Herodias on the other; they clasp hands and behind them stands the High Priest who holds their wrists; five other figures stand round (pl. XII, 9).

19. The daughter of Herodias dancing before Herod. Herod sits on the far side of the table, Herodias is on his left, and a crowned figure on his right. There are six other figures; those on the near side of the table are turning their heads outward to watch the daughter of Herodias who is in a contortionist attitude in the foreground (pl. XIII, 1).

20. Christ asleep in the ship. A beardless figure in front rests His head on one arm; the figures of all the twelve apostles are in the ship; all are bearded except one—St. John. The ship has no mast but there are bulwarks round prow and stern with rowlock holes in them (pl. XIII, 2).

21. Christ in the house of Peter's wife's mother. Christ is seated at a table on which is a dish; St. Peter in red sits beside Him and holds a key; another figure, a man, sits on the near side of the table, his back alone showing; a woman in a gold robe and red cape stands on the near side of the table holding a dish; no doubt this is St. Peter's mother-in-law ministering to them (Mark i. 31) (pl. XIII, 3).

22. Christ healing the sick. Christ stands in a group of ten other people; one is on crutches, another has his leg bandaged, another has a bandage over his head and eyes, and an old man holds up the leg of a young man and Christ touches it (pl. XIII, 4).

23. Christ preaching from the ship. He stands on the ship surrounded by the twelve apostles. The ship resembles the one shown in S.Tr. C 20.

24. Christ healing the sick. Christ holds a stone-coloured orb which has a gold band round the equator and a horizontal one from the pole to the equator, the conventional representation of the earth. Round Him are grouped various figures all looking towards a young man in a wheelbarrow in the foreground (pl. XIII, 5).

25. Christ casting out a devil. Before Him a man is kneeling, dressed in a short gold tunic with red hose and blue shoes; a naked figure issues from his mouth.[1]

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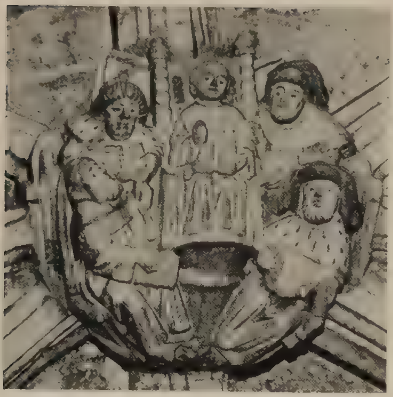
[1] This cannot be seen in my photograph but is described by Bensly.



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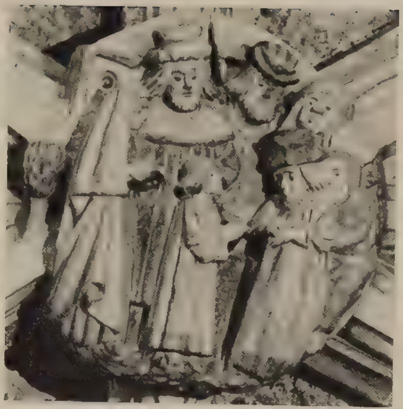

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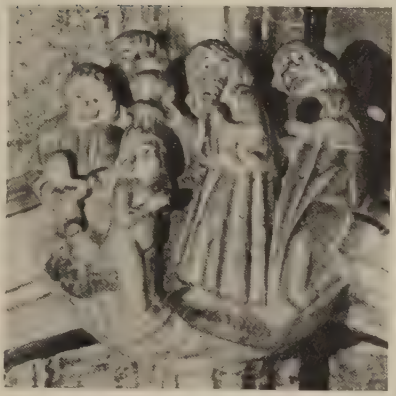

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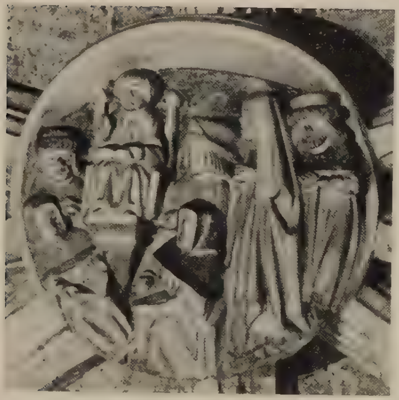

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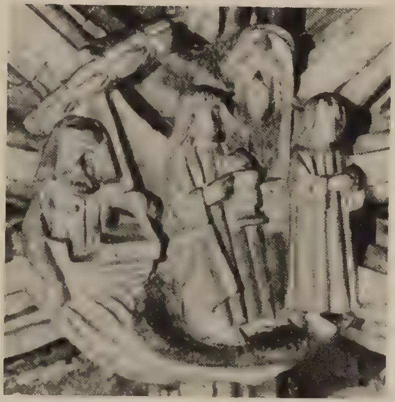

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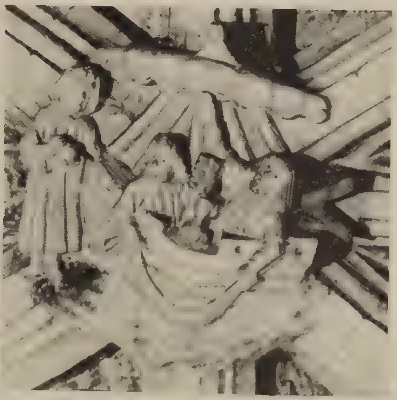

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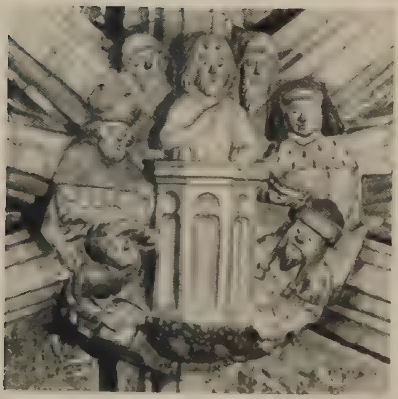

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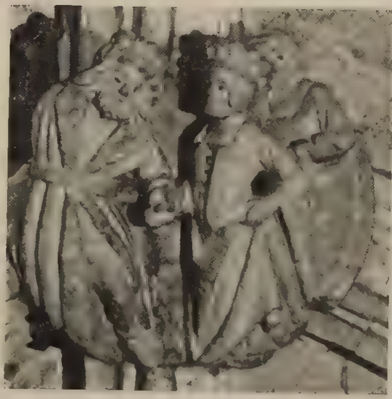

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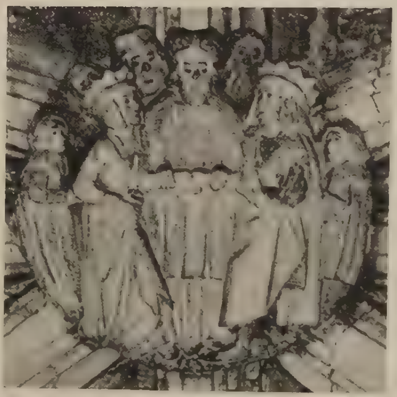

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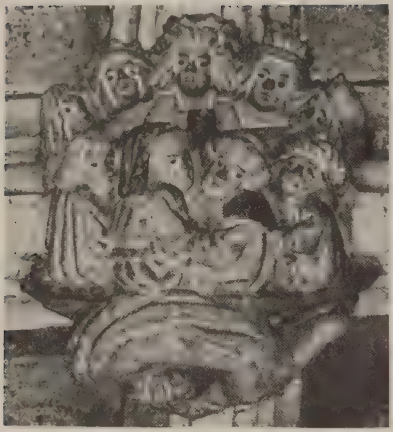
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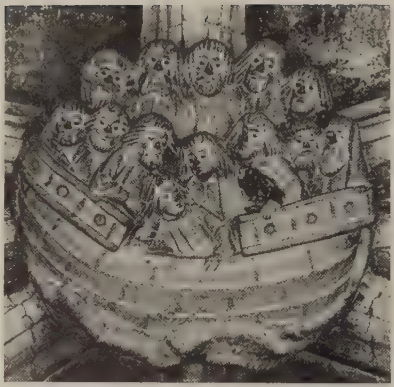
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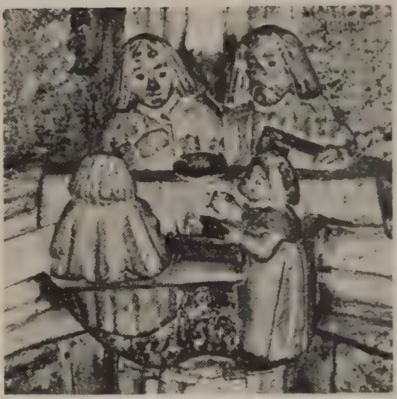
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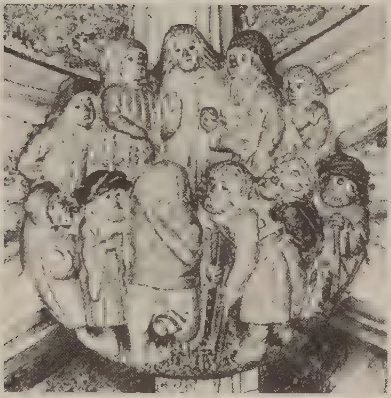
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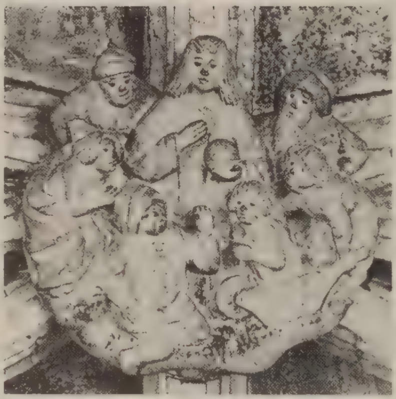
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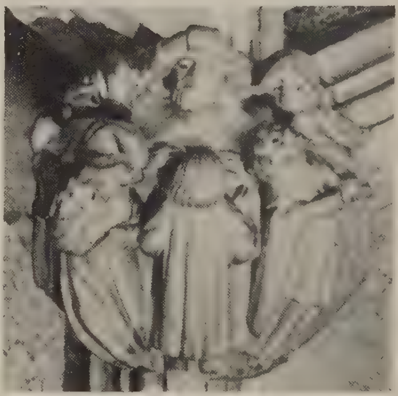
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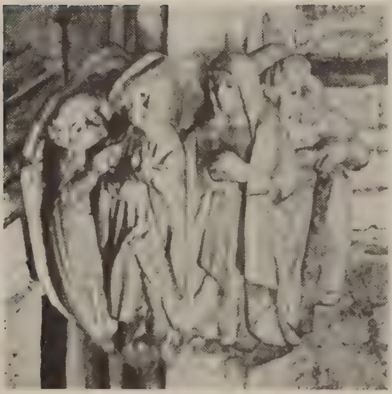
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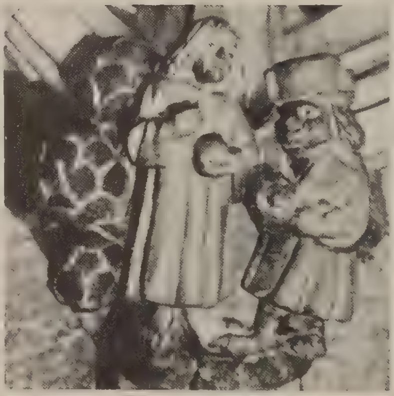
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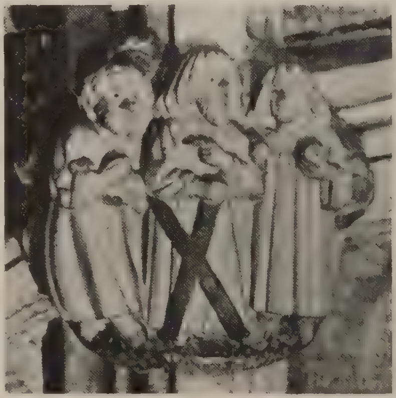
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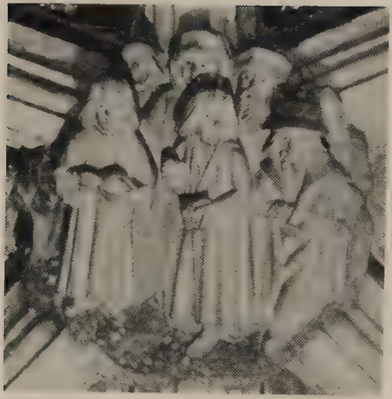

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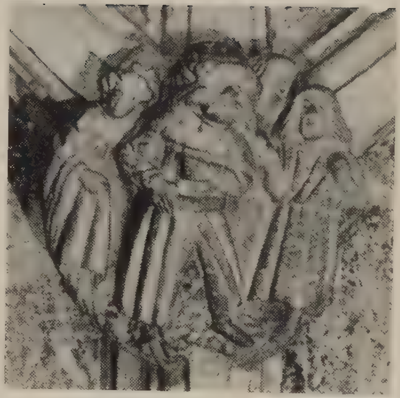

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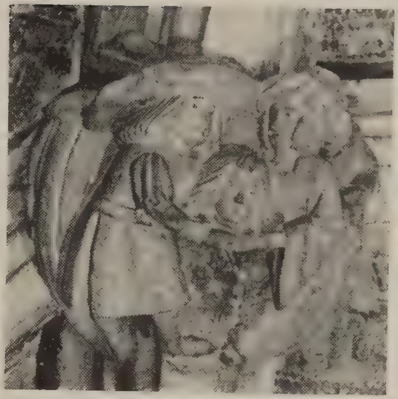

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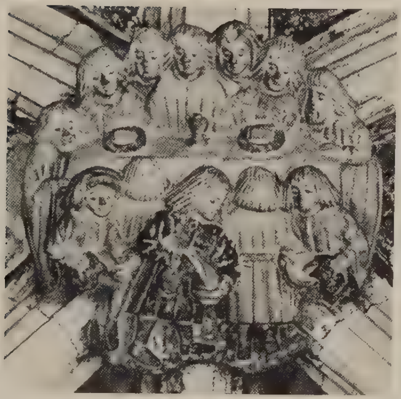

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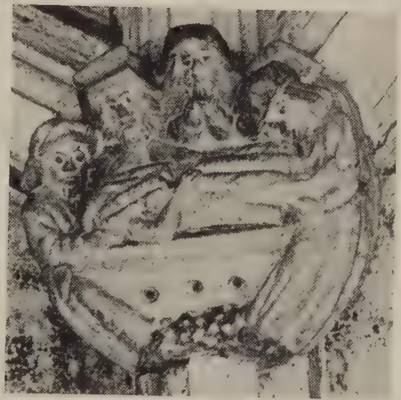

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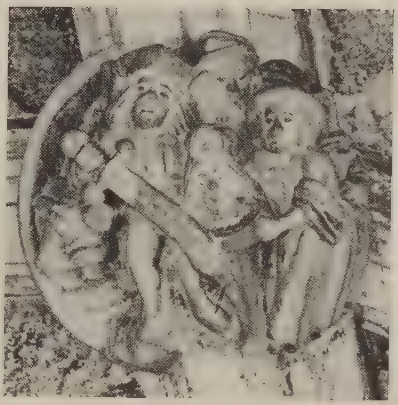

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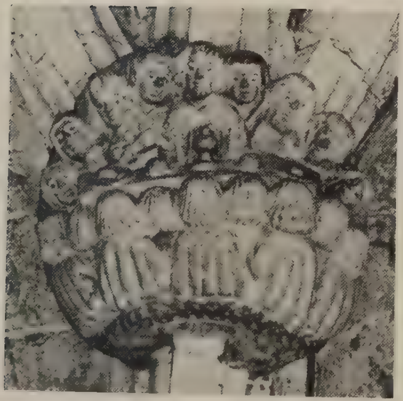

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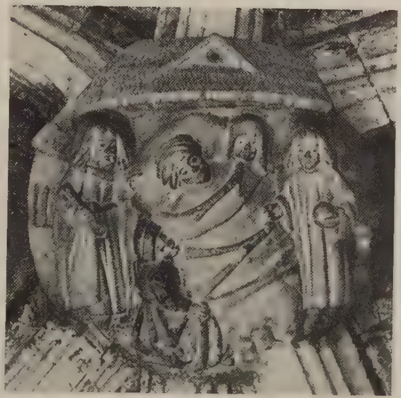

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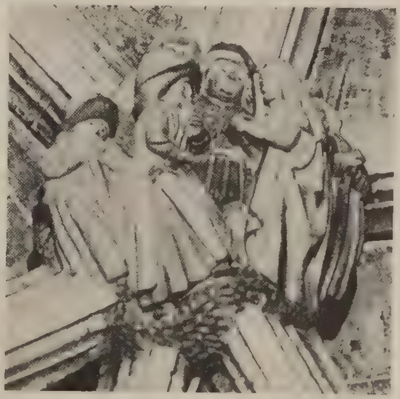

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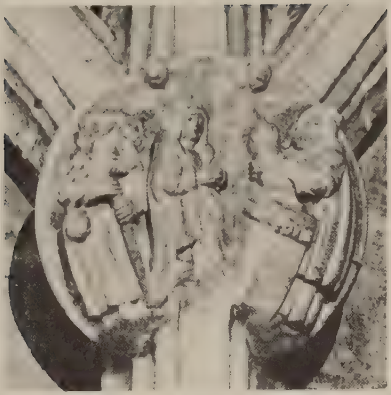
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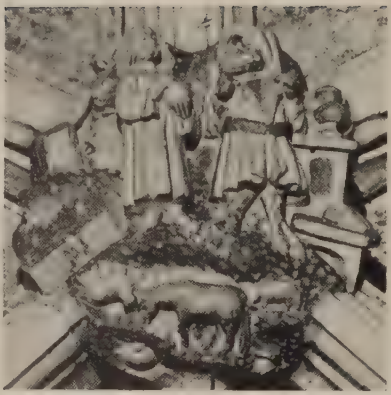
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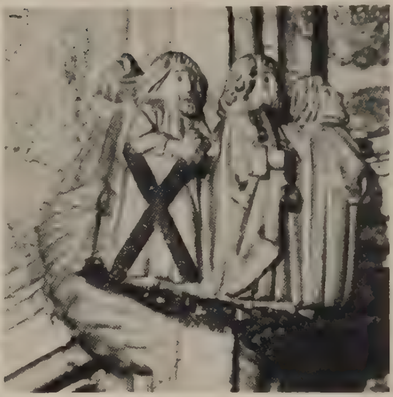
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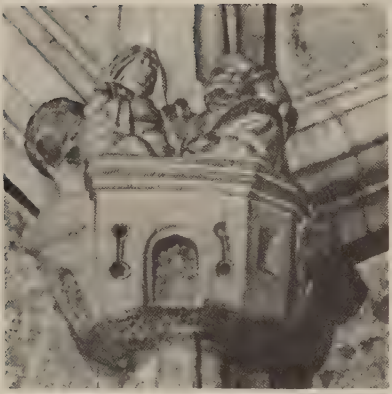
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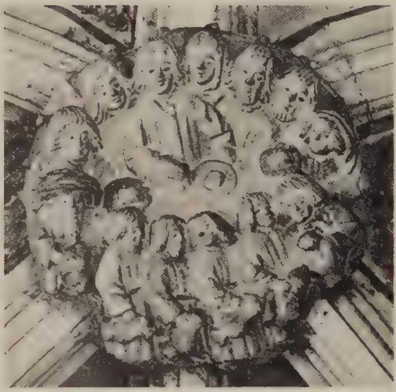
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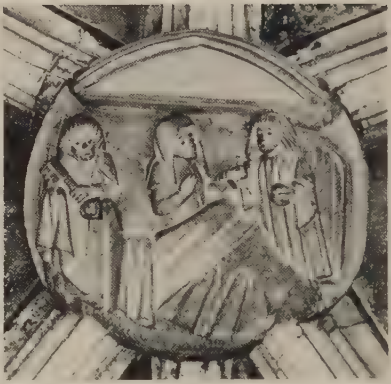
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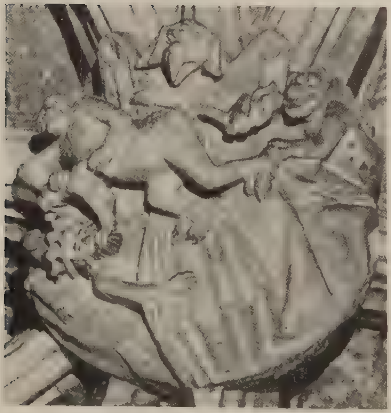
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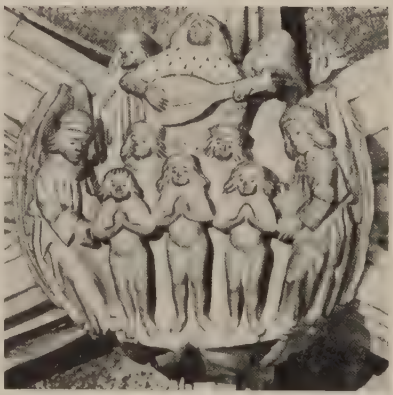
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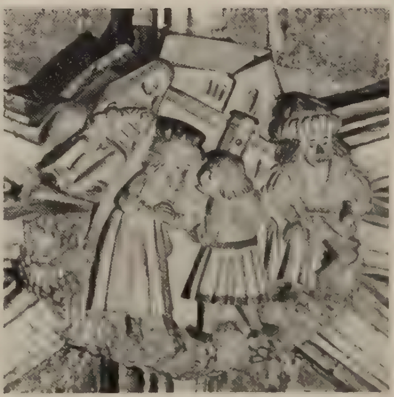
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South Transept

Eastern Line

1. Flight into Egypt. Our Lady carries Christ in swaddling clothes and is seated on an ass led by St. Joseph. There are indications of a building on one side.

2. Christ with the doctors (?). In the centre at the back is a bearded man with a red head-dress, with a rim on which are three lappets of gold; his robe is also red. Immediately in front of him is a small figure in a gold robe of whom only the back is seen; he has his hands raised towards the aged figure, who in turn seems to touch the youth's forehead with his hands. On the dexter side are two other figures, one in high-crowned hat and a red garment down to the knees, with dark girdle and dark hose; this figure is turning away from the group. In front of the last is another figure facing the group, looking down, and with his right hand on his beard; he wears a red cap with a dark brim, and a gold robe with an ermine tippet. On the sinister at the back is a woman, in a pedimental head-dress with a red brim, an inner garment of gold, and an outer red robe with some ermine on it; in front is a youth with very curly hair, looking upwards and facing away from the group; he is dressed in a short gold robe reaching to the knees with long wide sleeves, with red lining to sleeves and skirt; this covers a gold garment that reaches the feet (pl. xiii, 6).

3. Our Lady and St. Joseph, together with two other figures, searching for Jesus. The figure next to our Lady has a red hat, a gold robe, with wide hanging sleeves lined with red; the robe is fastened near the knees by a gold quatrefoil clasp, below which it is open showing the legs; in his right hand he holds a book. The other figure is a woman with gold head-dress and red garment with ermine lining, and a red skirt beneath (pl. xiii, 7).

4. The boss is divided into two scenes; on one side are our Lady and St. Joseph probably meant to represent the return to Nazareth; on the other side is St. John the Baptist with several trees near him; both he and St. Joseph carry books.

5. Christ healing the halt and lame. Christ in the centre holds an orb surmounted by a cross; two rather grotesque figures stand one on each side; one is in gold hat, red coat, and brown hose and is on two crutches; his left leg is bandaged, and the right, also bandaged, is bent backwards from the knee. The other figure uses a staff, has a red hat with gold brim, red coat with gold girdle and brown hose; the stump of the right leg ends in a gilded wooden leg; he holds his right hand to his ear as though he were deaf.

6. Joseph and Mary searching for Christ. Joseph is in front. There are indications of a building on the dexter side.

7. The Presentation. St. Joseph wears an ermine tippet; our Lady, with the Infant in swaddling clothes, hands two doves to the High Priest who stands behind the altar in gold cope and mitre.

8. The Temptation. Christ stands in the centre and beside him is a grotesque figure, in red hat and gold coat, carrying stones in his hands; behind our Lord is a conventional representation of trees (pl. xiii, 8).

9. St. Andrew brings St. Peter to Christ. St. Andrew stands in the centre beside

Christ; he holds the top of a green St. Andrew's cross in his right hand, and points over his shoulder with his left to St. Peter who stands behind him with joined hands and two keys slung over his right forearm (pl. XIII, 9).

10. St. John the Baptist pointing out Christ to the people. He stands in the centre, Christ on the dexter; five other figures, two of whom are women, are grouped around (pl. XIV, 1).

11. St. John the Baptist with the Pharisees and Sadducees. He is in the centre; on one side is a figure in a two-horned gold hat, a red tippet, gold dalmatic, and white alb; on the other side a figure in a pileus hat, a blue-grey tippet, a gold chasuble, and red surplice. Two other figures at the back of the group cannot be well seen.

12. Christ in the wilderness with trees round Him; above His head is a white dove.

13. Christ in the centre turning to St. John the Baptist who stands on the sinister with trees behind him; on the dexter is an angel with gold wings and a white robe.[1]

14. St. John the Baptist rebuking Herod. He is on one side holding his hand out towards Herod who stands in the middle with legs apart in a distinctly aggressive attitude; on Herod's right Herodias takes him by the arm (pl. XIV, 2).

15. The daughter of Herodias and a man carry the head of St. John the Baptist on a charger. The man wears a red hat, a gold robe with dark sleeves, and red hose; the woman has a gold robe with wide hanging red sleeves, a necklace, and close braided hair (pl. XIV, 3).

16. The Marriage Feast at Cana. Nine people round a table, two being on the near side so that only their backs are visible. On the far side in the middle is Christ with our Lady on His left. On the near side three servants pour wine from flagons into chalice-shaped cups. On the table are two dishes and a covered cup (pl. XIV, 4).

17. The burial of St. John the Baptist. There are four figures; two place a headless body in a coffin which has three holes drilled in the side near the bottom (pl. XIV, 5).

18. The beheading of St. John the Baptist. An executioner, in red hat, short red robe, light hose, and red boots, carries a very large sword in his right hand; with his left he places the head of St. John the Baptist on a plate held by the daughter of Herodias. On the dexter a headless body is indicated. Two other figures are in the background (pl. XIV, 6).

19. A Feast. Eighteen figures are seated round a table; nine on the near side show only their backs. Christ on the far side has a woman on either side of Him with veils over their heads. Two of the other figures seem to be women. On the table in front of Christ is a covered cup; there are four other objects on the table, probably loaves. This may be the supper at Bethany with Lazarus, Martha, and Mary (John xii, 2–3) (pl. XIV, 7).

20. The Centurion sending his servant to Christ (?). Four figures; one in the centre has an outer robe with buttons down the front, but open at the sides so that the arms, with the sleeves of an under garment, come through; below the waist the two halves of the outer garment are fastened together by a quatrefoil clasp; a hat with a high turned-up brim is worn. This man speaks to another, who is dressed in a tunic reaching to the knees and a round hat with broad brim; he has his hands together. It looks as

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[1] I follow Bensly, no wings being visible in my photograph.

though the first man were in authority giving orders to a subordinate. Two other figures are shown, one a woman who holds her dress off the ground, the other a man in a gown girdled at the waist, and a coif.

21. The Sermon on the Mount. Christ stands on a small eminence and seven disciples stand round Him.

22. Christ healing St. Peter's wife's mother. The latter is on a bed or mattress, with blankets over it, which is being raised up by two figures, one a woman. Christ stands on one side and St. Peter with a key on the other. The figures are standing on the threshold of a small house with a window on one side, and a conical thatched roof with a ventilator in it (pl. XIV, 8).

23. The servant of the Centurion coming to Christ (?). A figure in a short red tunic and white hose is kneeling on one knee before Christ and has his hands joined in supplication. Some trees are behind.

24. The servant returning to the Centurion (?). A figure stands in a long gold gown with wide pendent sleeves and high-crowned brimmed hat; he holds a staff; a figure stands before him, bareheaded, in a short red tunic; he has his hands together.

25. Christ raising the Widow's son. He stands on one side, and on the other the widow, with a veil over her head, holds the wrist of her son, who is represented as just rising from a recumbent position.

South Transept

Western Line

1. St. Joseph and an angel who touches his right arm; beside them is a tree and a small house with a thatched roof.

2. The Finding in the Temple. Our Lady and Christ face each other and hold hands; behind is St. Joseph. There are two trees behind the figures.

3. The Flight into Egypt. Our Lady carries the Infant in swaddling clothes, and St. Joseph leads the ass on which she sits.

4. Our Lady and St. Joseph searching for Christ. Our Lady with her hands clasped speaks to a man in a high, red head-dress, who has his hand on his beard; his gown is open at the side and is secured at the waist by a girdle and below by a quatrefoil clasp. Behind our Lady is St. Joseph and there are four other figures in the background (pl. XIV, 9).

5. The Holy Family returning from Jerusalem. St. Joseph is at a doorway; our Lady with some object in each hand follows him, and behind her is Christ.

6. Our Lady and St. Joseph searching for Christ. Our Lady with her hands together speaks to a beardless man who wears a red head-dress, a dark-green cape, and a gold robe, and who stands in a doorway. St. Joseph stands in the background.

7. The Circumcision. Our Lady stands in the middle with St. Joseph behind her; on the sinister the High Priest holds the Infant on an altar; there is the usual arch over the figures to represent the Temple (pl. XV, 1).

8. The Temptation. Christ stands beside a tree; on the sinister is the Devil turning away; he is represented as a dragon with wings which are black outside and red with

gold ribs on the inner side; he has a long tail and some sort of head-dress with gold horns; on his stomach human features are shown.[1]

9. Christ, with St. Andrew and St. John the Baptist. St. Andrew stands in the middle holding a large St. Andrew's cross, which is taller than the figures; Christ, bearded, is on the sinister, and St. John the Baptist is on the dexter, holding a book and walking away from the two other figures.

10. The Temptation. Christ, holding a large orb, speaks to the Devil who is shown as a man with a large and grotesque head, and black face, breast, and claws; on the sinister are two tables one with a flagon on it, the other with an object perhaps meant for a loaf of bread. The Devil is dressed in a short gold tunic with red lining. Below the two figures are four animals, seemingly a sheep (upside down), a horse, a pig, and perhaps a rabbit half disappearing into its hole. On the dexter are two chests, one of them is open and displays gold objects (pl. xv, 2).

11. St. Peter and St. Andrew following Christ. On the dexter is the mast and prow of a gold and red ship with a white furled sail; next to the ship is St. Andrew with one hand on the top of a St. Andrew's cross which is about half as tall as the figures. In front of him is St. Peter holding the keys, and in front of him is Christ, a bearded figure (pl. xv, 3).

12. The Temptation. The turret of the Temple, with a door, two loopholes, and two windows; on the top, behind a parapet are Christ and the Devil, the latter with black face, large red lips, and very large hands; he wears a gold and black robe. On each side is a tree (pl. xv, 4).

13. St. John the Baptist with the Pharisees and Sadducees. He stands in the centre holding a book in his left hand; on the sinister is a figure with white beard and long hair, in rather voluminous robes; an outer garment, reaching nearly to the ankles, has a deeply indented edge, with little round pieces on the projections; an object like a maniple is worn with a large tassel at the end. The figure on the other side has a gold beard and long hair with ringlets on each side of the face; a full robe of red, open in front, is worn.

14. St. John the Baptist put in prison. On the dexter side is the door of a building with a loophole at the side; into this door St. John the Baptist (only partly visible) is being thrust by a man; on the sinister is Herod and behind him Herodias. Another head is indicated above the door.

15. A Feast. Thirteen figures round a table; four have their hands together as though praying, the hands of the others are not visible; five figures on the near side of the table show only their backs; on the table are a covered cup, two dishes, and a loaf. No woman is indicated and the feast may be St. Matthew's (Matt. ix, 9-10).

16. The Marriage Feast at Cana. Thirteen figures round a table; Christ sits on the far side holding a cup in His hand; next to Him is a woman in a veil, our Lady; at the side of the table is another woman in pedimental head-dress, probably the bride; opposite her is a young man whose clothes seem rather more elaborate than those of the rest, though not much of them can really be seen; this may be the bridegroom. Next to him is an old man with a very wide-brimmed hat, the only male figure to wear a

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[1] Not visible in my photograph but mentioned by Bensly.

head-dress; he holds a covered flagon, and he may be the governor of the feast. In front of the table are four servants, one behind the other, each carrying a flagon, the foremost is having his flagon filled by a fifth servant who holds another from which he is pouring. On the table, besides the cup on which Christ has His hand, are three dishes (pl. xv, 5).

17. Herodias receiving the head of St. John the Baptist from her daughter. There are two other figures, one a page holding up the train of the dress of Herodias.

18. St. John the Baptist rebukes Herod. Behind Herod is another figure, perhaps Herodias. There is also a figure behind St. John the Baptist.

19. Herod's Feast. Thirteen or fourteen people seated round a table, most of them having only their backs showing, and the table itself is hidden by them; at the far side of the table is Herod with Herodias on one side of him and her daughter on the other. Two of the figures on the near side of the table wear tippets, and one has on a massive gold chain.

20. Christ asleep in the ship. A conventional ship like those represented above, with Christ, His head on one side and eyes closed, surrounded by eleven heads.

21. Christ preaching in the Temple (?). Christ in the centre stands under a circular roof or porch; on the sinister are two figures turning towards Christ; on the dexter one figure turning away, one turning towards Him.

22. Christ healing St. Peter's wife's mother. Christ on the sinister is taking the woman by the arm, and she is rising out of a bed which has a red coverlet spangled with gold. Behind the bed is St. Peter with a key (pl. xv, 6).

23. Christ casting out a devil. Our Lord is on the dexter; in front of Him and turning towards Him is a man in a short tunic; behind the man is a grotesque figure, semi-human, with its arms on the man's shoulders.

24. The Jews accusing Christ of casting out devils by Beelzebub. Christ on the dexter side; in the centre is a man in a high-crowned, gold hat and voluminous gold robes, looking back at Christ, but pointing forward to two misshapen figures.

25. Christ and five apostles. Two are seen to have bare feet, which gives a clue to their identity.

North Transept

Central Line

1. An angel appearing to St. Joseph, who is asleep on a green bank; the angel grasps his left arm and touches his right shoulder.

2. The death of Herod. Herod, crowned, is lying on a bed, and is covered, up to his breast, by a white sheet turned down over a gold counterpane. Two demons are leaning over the bed, one with the head of a bird, the other toad-like; the last figure is holding the tail and leg of a third figure, naked and scaly, shaped like a man, but with a tail and cloven feet. This demon is taking the soul, which, in the form of a small naked figure, issues from Herod's mouth (pl. xv, 7).

3. An angel telling St. Joseph that Herod is dead. St. Joseph is standing at the door of a house which has a loophole window at the side; the angel holds him by the arm.

4. The Souls of the Innocents led to Paradise. Three naked figures stand in the foreground with their hands in an attitude of prayer; angels support them on each side; behind are two other figures, probably angels. Above is a figure in an ermine tippet playing on a four-stringed lute; on each side is another figure, probably an angel (pl. xv, 8).

5. The Flight into Egypt. Our Lady, on a white ass, carries the Infant wrapped in swaddling clothes; St. Joseph walks in front; in the background are a tree and the indications of a house.

6. The Arrival in Egypt. On the dexter our Lady carries the Infant wrapped in swaddling clothes; she rides on an ass of which only the hind quarters are visible; in front St. Joseph talks to a young man in a short gold tunic with red sleeves. On the sinister is a seated figure in a high-crowned hat with a fur-trimmed gold gown, open in front, with red sleeves, and a white tucked undergarment; he holds some object in his left hand; his left leg is slightly raised and bent, in the conventional attitude of a king, and it is thus likely that the figure is meant for Pharaoh. Behind are the thatched roof and upper windows of a house, the lower part being hidden by a surrounding wall with a low turret at one corner (pl. xv, 9).

7. The Shepherds starting for Bethlehem. There are three figures one behind the other; the first has a shepherd's crook in his right hand, and with his left he holds some musical instrument to his mouth; the second carries some object, and the third carries a small bag. In front of the figures are several sheep, and at the feet of the first figure is a black dog (pl. xvi, 1).

8. The Shepherds arriving at Bethlehem. The three figures, one behind the other, approach the door of a house; the first plays bagpipes; the other two carry crooks, and the last has some other object also. The door is closed and shows planking and hinges. The house has a stepped gable over the door in which is a small circular window; at the side is a gable roof with windows, and part of a crenellated wall and turret with loop-hole windows; two trees are in the background (pl. xvi, 2).

9. The Magi on their journey. Three figures on horseback; two carry covered cups and one an open bowl; the front figure points to the star which is shown just in front on one of the vaulting ribs.

10. The Magi at Bethlehem. On the dexter our Lady sits with the Infant on her lap; He dips His hand into a cup which one of the Magi has given Him; St. Joseph sits behind. The three Magi are one behind another, each carrying a cup; the last has straps diagonally down his legs, holding on high boots apparently. Behind the figures is a thatched gable roof with a star on the ridge; underneath, the heads of two beasts are seen (pl. xvi, 3).

11. The Shepherds leaving Bethlehem. On the dexter three figures walk away; the last has a crook in one hand, a satchel in the other; on the sinister our Lady sits, carrying the Infant, apparently naked, on her lap; St. Joseph sits just behind her. Above is a thatched gable roof with a four-pointed star on it; the head of an animal is seen under it.

12. The Shepherds at Bethlehem. On the dexter are the three shepherds, two standing, one kneeling; two are touching their hats; they each carry some object, the

last one a satchel; the kneeling figure presents some object to the Infant, who is seated naked on our Lady's lap; St. Joseph stands behind leaning on his staff. Above is a thatched gable roof with a six-pointed star on it; two beasts are seen inside (pl. xvi, 4).

13. Our Lady and St. Joseph. They are separated by a vertical moulding which perhaps represents the door or wall of a house, so that one figure is inside, the other outside.

14. Angels appearing to the Shepherds. A shepherd stands on each side, one holds a crook; at the base is a third shepherd also with a crook; in the centre of the boss are the heads of nine sheep, above them are conventional clouds, and above the clouds is a half figure of an angel with hands upraised.

15. The Nativity. Our Lady, on a bed with a golden coverlet lined with green, holds the Infant in her arms; St. Joseph stands at the foot of the bed with his hands resting on it; behind are two female figures (pl. xvi, 5).

16. The Nativity. The boss is divided into three compartments by two vertical mouldings; each compartment is arched, and over the whole is a thatched roof on which is an eight-pointed star.[1] Our Lady stands in the centre compartment with her arms extended towards the Infant who is lying naked on a low couch; golden rays come from the top. In the dexter compartment are two animals, in the sinister, St. Joseph (pl. xvi, 6).

17. The Nativity. Our Lady in a red head-dress lies on a bed; at the foot is St. Joseph; behind her is the manger, represented by one horizontal and three vertical bars, into which a woman is placing the Infant; two animals' heads are seen behind (pl. xvi, 7).

18. The angels appearing to the Shepherds. Three shepherds, one with a crook and satchel, stand on one side, and six angels on the other; the angels have conventional clouds above and below, and golden rays proceed upwards from them. At the top of the boss are the heads of three sheep.

19. Two scenes. (1) On the dexter, an angel appearing to St. Joseph, who stands in an attitude of thought (Matt. i. 20); above is the half figure of an angel, with a sceptre, surrounded by a circle of golden rays. (2) St. Joseph takes the hand of our Lady who stands on the sinister in a compartment divided from the rest of the boss by a vertical moulding, she herself standing under an arch which probably represents a doorway; the subject intended seems to be St. Joseph taking 'unto him his wife' (Matt. i. 24).[2]

20. The Circumcision of St. John the Baptist. Elizabeth dressed in a robe with a hem of ermine places the child on an altar; the High Priest, in a two-horned head-dress, stands behind the altar and places his hand on the child. Behind Elizabeth is a female figure, and on the far side of the altar a man with a staff in one hand, and with the

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[1] The thatch and the star are hardly visible in the photograph.

[2] Bensly thought the angel was God the Father; to my mind it is certainly an angel; Gabriel is shown with a sceptre in several bosses. Bensly did not realize that two scenes are depicted; the figure I call St. Joseph taking the hand of our Lady he leaves unnamed, and says he is kneeling and kissing the Virgin's hand; the appearance of kneeling is caused, I think, by faulty perspective in the design.

other hand raised. Over the figures is a triple arch with two small pendent quatrefoil bosses (pl. XVI, 8).[1]

21. Zacharias returning to his house (Luke i. 23). He has a red cap with gold robe and cloak, and a wallet suspended from his waist girdle; he has ringlets falling on each side of his face; he approaches a doorway in which a woman is standing in a veil and a gold dress; he takes her hand with his left hand, and with his right he holds his beard.[2]

22. God the Father sending Gabriel (Luke i. 19). God the Father, on the sinister, is surrounded by gold rays and light-blue clouds; He is crowned and wears a long golden robe over which is a red cloak; in His left hand He holds a golden orb; His right hand is raised, all the fingers being extended. Gabriel is on the dexter; he has gold wings; he holds a sceptre in his right hand, and his left hand is raised (pl. XVI, 9).

23. The Visitation. Two female figures on each side of the boss, separated by a row of dark objects whose meaning is not apparent.

24. Zacharias comes out of the Temple (Luke i. 22). On the sinister a figure emerges from a doorway that has an ogee-shaped head, and small windows above it; he wears a gold robe and tippet, and a wallet hangs from his belt. He has one hand to his breast, and the other is raised towards a group of five figures who stand outside the door (pl. XVII, 1).

25. Zacharias writing the name of St. John the Baptist (Luke i. 63). He stands in the centre in a gold two-horned head-dress, and a gold vestment over an alb; he is pointing with his hand to the page of a book which is held open by a young man on his left; the lettering in the book is represented by dots. On the other side are two figures, a bearded man and a woman. Behind the figures is a representation of the roof of a building with two little turrets, ending below in bosses with carved roses on them, the Temple (pl. XVII, 2).

North Transept

Eastern Line

1. The Flight into Egypt. Our Lady seated on a white horse carries the Infant; the horse emerges from a gateway and is led by St. Joseph (pl. XVII, 3).

2. The beginning of the Flight. Our Lady comes out of a door carrying the Infant; St. Joseph facing her takes her by the hands.

3. Herod demanding of the priests where Christ should be born (Matt. ii. 4). Herod sitting with his legs crossed speaks to a man in a close-fitting red coif; in the background is another figure in a red robe with fur trimming and white under garment, who holds an object that may be meant for a roll of parchment.

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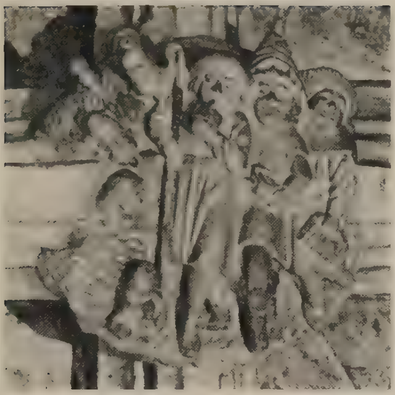
[1] I think this is the circumcision of St. John the Baptist; the woman who places the child on the altar is dressed differently from our Lady in other bosses; in particular she has an ermine hem; the High Priest is exactly like Zacharias in N. Tr. C 25.

[2] This has been described as St. Joseph taking to him Mary his wife, but the figure is distinguished from St. Joseph in the other bosses by his head-dress, by the absence of a staff, and by the ringlets of hair. Several of the surrounding bosses deal with Zacharias.



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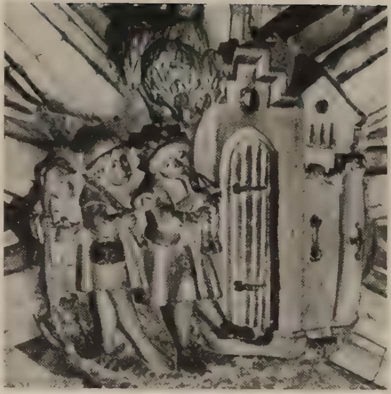

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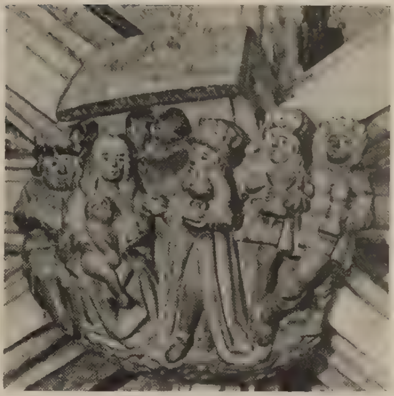

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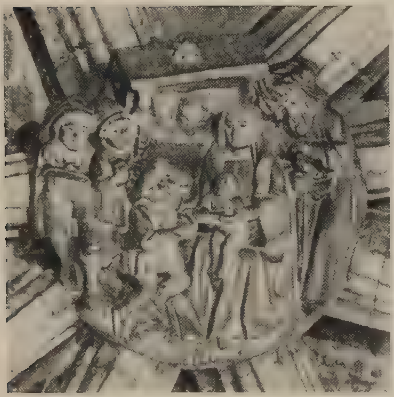

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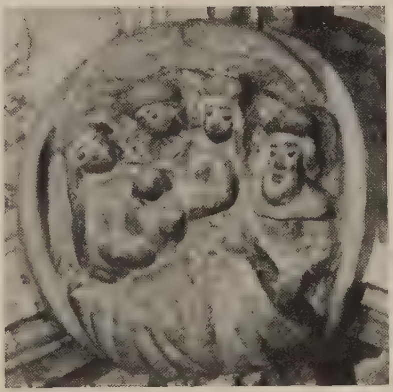

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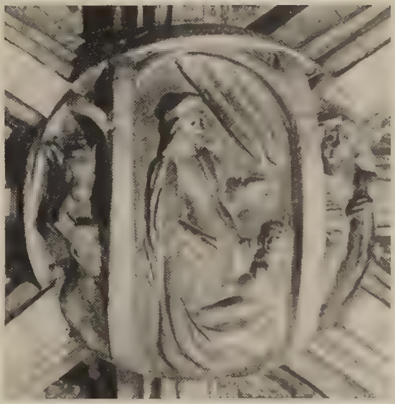

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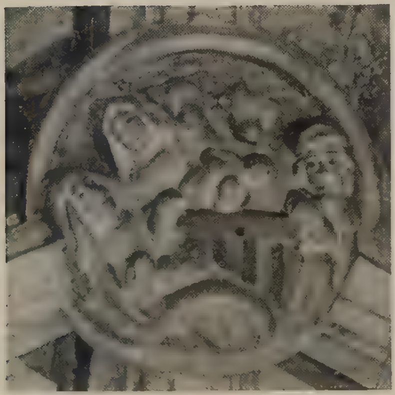

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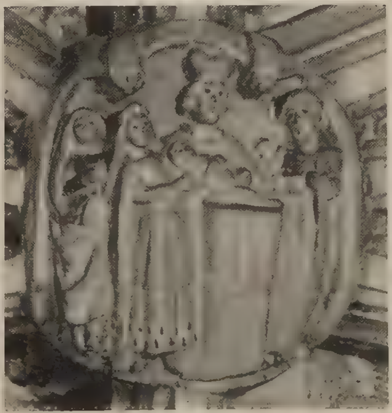

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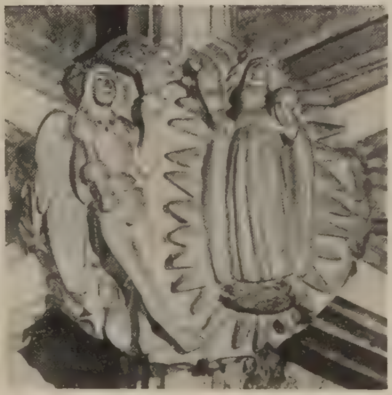

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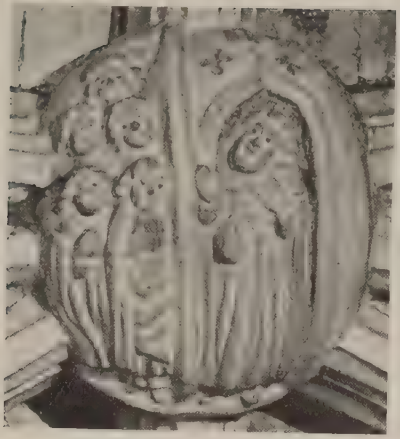

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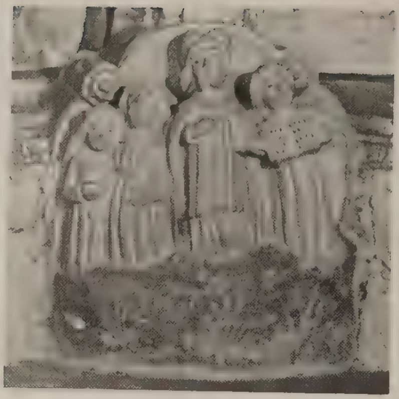

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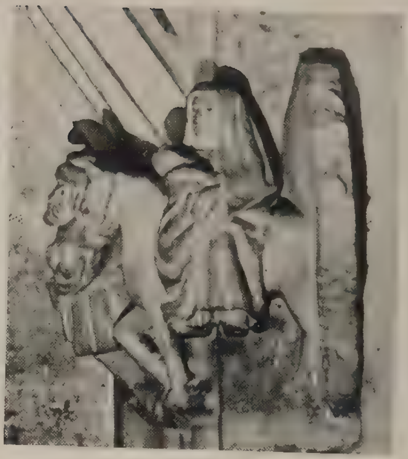

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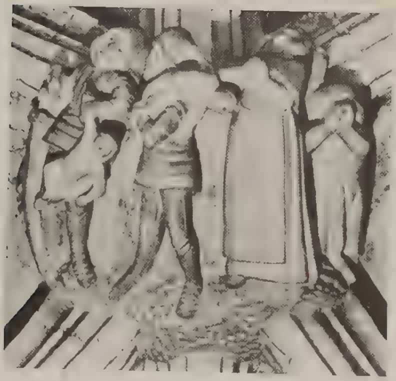

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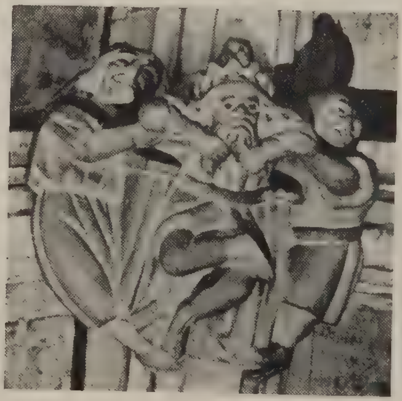

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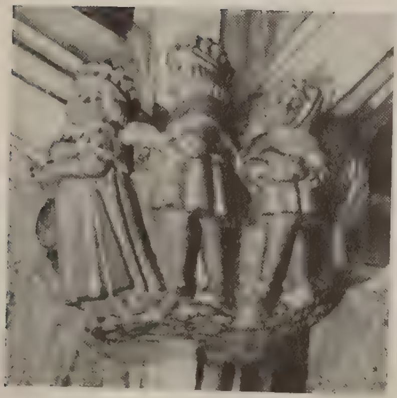

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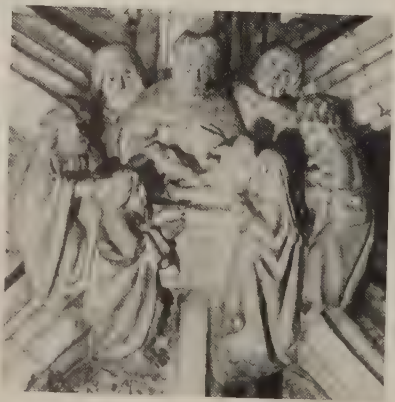

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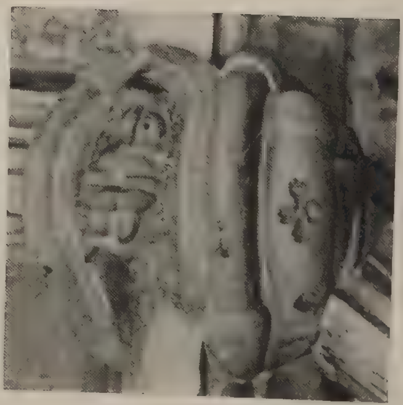

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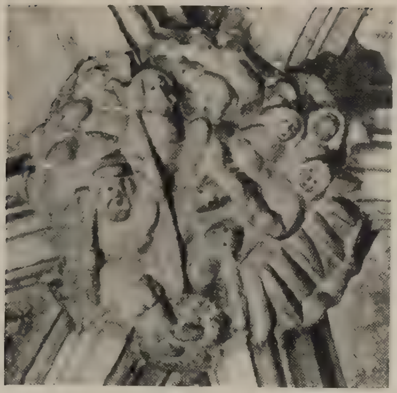

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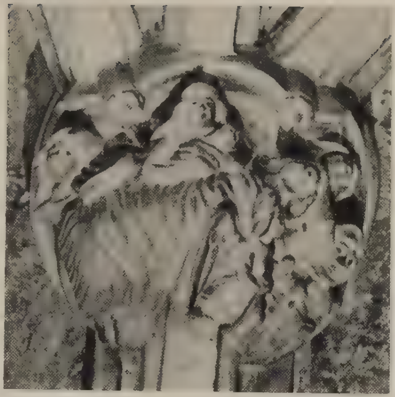

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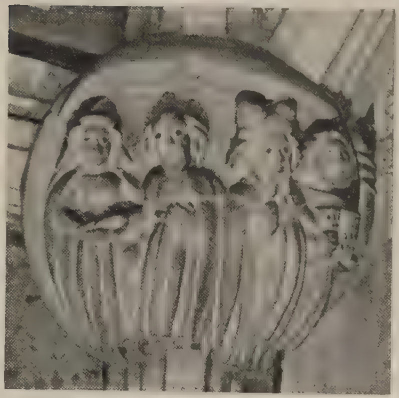

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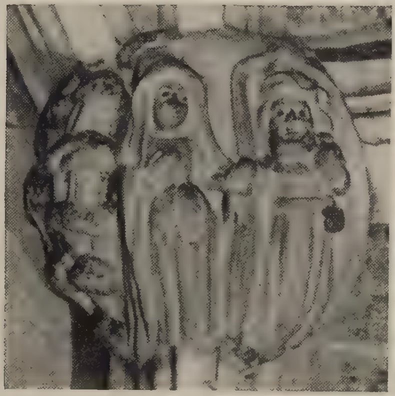

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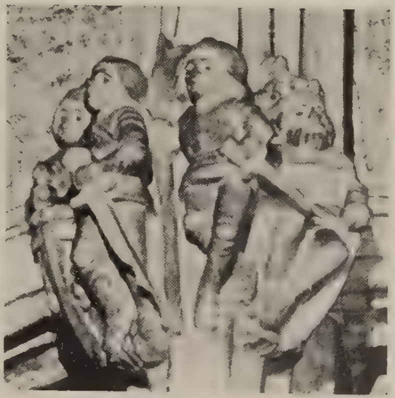

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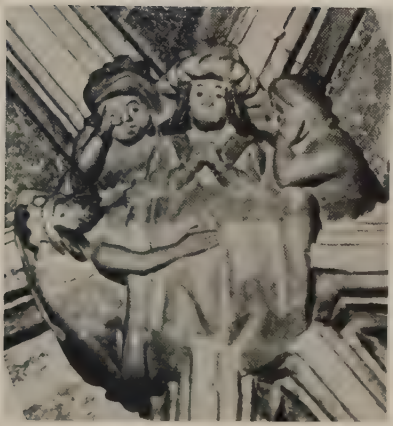

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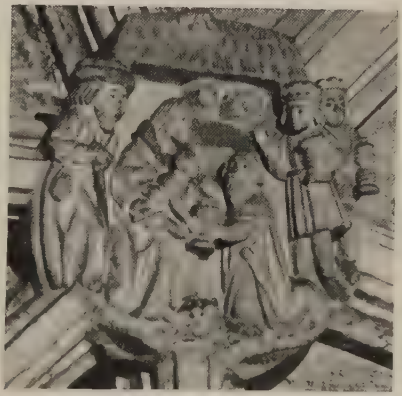

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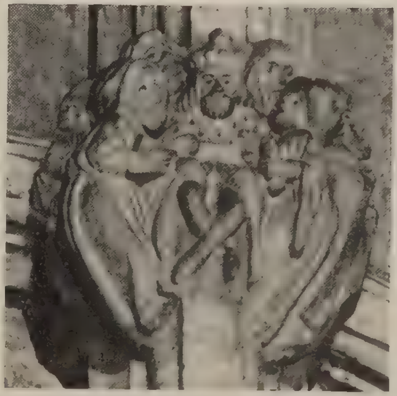

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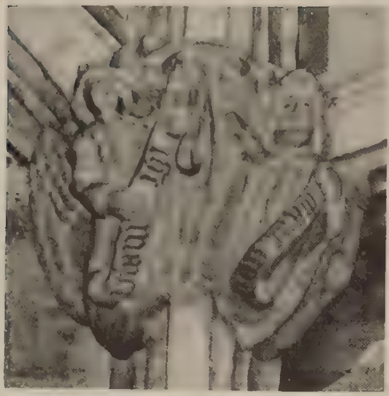
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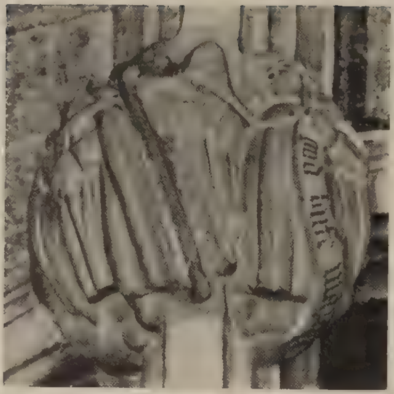
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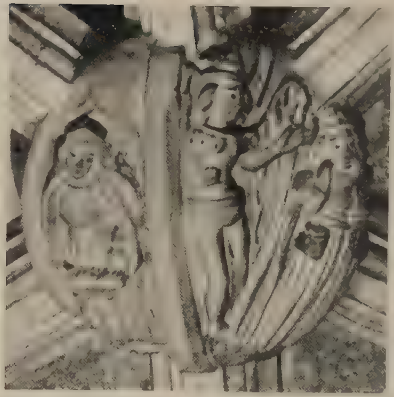
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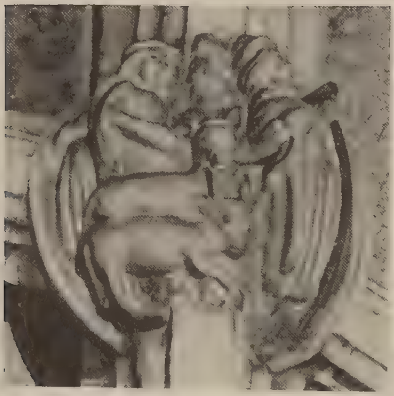
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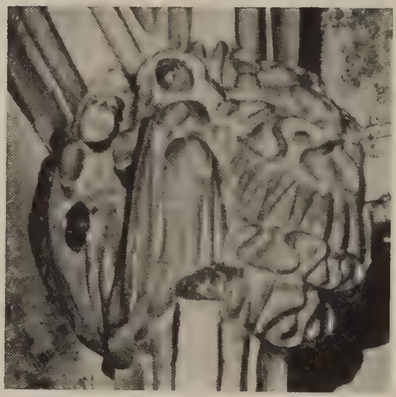
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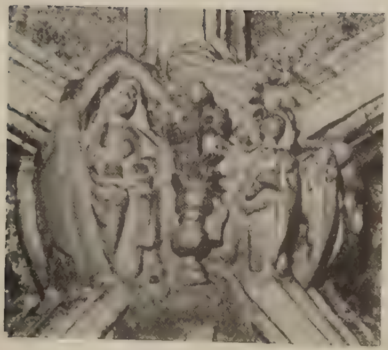
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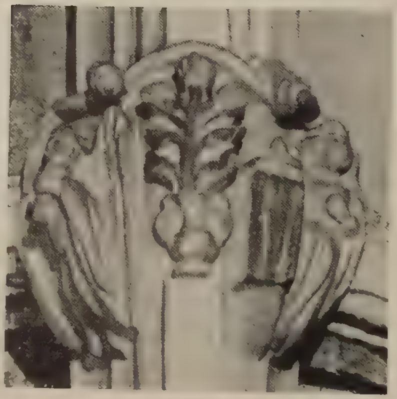
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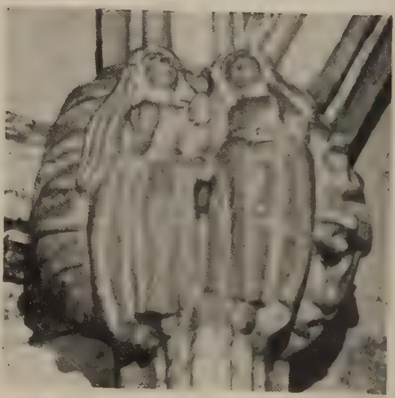
8

Published by the Society of Antiquaries of London, 1933

4. The Massacre of the Innocents. On the dexter are two men in black and gold armour; one has a naked child flung over his shoulder, the other is holding a child by the arm and is beginning to dismember it with a very large sword. On the sinister are two women, one with her head thrown back and her hands clasped, the other kneeling with her hands to her face (pl. XVII, 4).

5. Herod exceeding wroth (Matt. ii. 16). Herod is seated in an arm-chair with his right foot crossed over his left knee; he is pulling his beard with both hands. An attendant on each side supports his arms (pl. XVII, 5).

6. The Flight into Egypt. Our Lady seated on a horse carries the Infant in swaddling clothes; in front St. Joseph leads the horse.

7. The Magi on their journey. Three mounted figures approaching a building[1] with a gold star on the roof.

8. The Magi arriving at Bethlehem. Three figures walking; the last one carries an open book with lettering indicated (pl. XVII, 6).

9. The Magi arriving at Bethlehem. Three figures on horseback; in front of them is the door of a house with a gold star on the roof.

10. The Circumcision. Our Lady stands before an altar with St. Joseph behind her; the Infant lies on the altar, behind which is the High Priest in a double-lobed head-dress; he has a knife in his right hand with which he is performing the operation. Four other bearded figures are grouped round; one of them stands beside the High Priest and holds up an open book on which lettering is indicated (pl. XVII, 7).

11. Herod demanding of the priests and scribes where Christ should be born (Matt. ii. 4). Herod seated in a chair holds an open book before him, with writing indicated on it; he has his mouth wide open as though speaking loudly; a figure on his left holds his arm. On the other side a bearded figure is leaning over Herod's shoulder speaking to him. Three other figures are in the background.

12. The Magi on their journey. Three mounted figures; in front of them is an angel with gold wings, in long robe with ermine tippet.

13. The Shepherds. Three figures; two of them carry gold crooks on black staffs; above are conventional clouds with a gold six-rayed star; several sheep[1] are on either side of the shepherds.

14. Two figures. One holds a book with a large red seal hanging from it in his right hand, and a roll with a small quatrefoil-shaped seal hanging from it in his left; he wears a short tunic. The other figure is bearded and wears a long robe. It has been suggested that this is a scribe being sent to Herod.

15. A building with an open door on the dexter, into which a man goes. He wears a short tunic and carries a book with a pendent seal in his right hand; his left hand is not visible. On the sinister side is a turret with a cross-shaped loop-hole. This man may be meant for the same man who is shown carrying a book in the last boss (pl. XVII, 8).

16. Angels appearing to the Shepherds. There are three figures of shepherds on the dexter; two of them carry crooks; on the sinister are three angels with rays of light below them; they carry a scroll on which letters are indicated; there are eight or nine sheep in various positions (pl. XVIII, 1).

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[1] Bensly's notes; not visible in my photograph.

17. The Flight into Egypt. Our Lady carrying the Infant sits on an ass led by St. Joseph. Bensly says that St. Joseph carries on his shoulder a gold bag by means of a dark coloured stick; this is quite invisible in the photograph, and some damage seems to have been done to St. Joseph's figure of which the head appears to be missing.

18. An angel appearing to St. Joseph. The angel has rays of light and conventional clouds behind him.

19. The birth of St. John the Baptist. A woman is lying on a bed; behind, another woman is holding a child; there is a figure at the head and another at the foot of the bed; in front an angel speaks to a man, no doubt Zacharias; above is the roof of a building with two little angle turrets with bosses carved as roses below. The absence of St. Joseph and of any sign of a manger debar this from being Christ's nativity, and the building is represented as the Temple and not as the stable (pl. xviii, 2).

20. Zacharias naming St. John the Baptist (Luke i. 63). Zacharias in a two-horned head-dress stands next to a man who holds an open book on which lettering is indicated; on his other side are two figures, a man and a woman; the latter carries a round object. The figures stand in a doorway meant no doubt for the Temple (pl. xviii, 3).

21. God the Father sending an angel. He stands on the sinister, is crowned, and wears a red robe with a gold cloak over it; rays of light and conventional clouds surround Him; He carries a gold orb in His left hand and the right is raised towards the angel. The latter wears a doublet with a small ermine tippet, and has bare legs.

22. The boss is divided into two parts by an upright square pillar. Our Lady stands on the sinister holding a closed book with gold clasps; on one side of her is a vine stem with a leaf and a bunch of grapes. On the dexter side of the boss, under a Gothic arch, is another figure in a gold robe which is held up showing a red under garment; one foot is visible and the foot is not bare, showing that the figure is not an angel; the meaning of the design is not apparent.

23. The Visitation. Two female figures meeting. Bensly speaks of both figures as having long hair and of the dexter one being the Virgin; the photograph seems to show that the sinister figure is in a veil head-dress and that hair is not visible, while the sinister figure has long hair; the latter therefore must be the Virgin and the former Elisabeth.

24. Zacharias and Elisabeth. Zacharias comes out of a doorway and takes Elisabeth by the hand; the fact that the male figure has no staff, and that the surrounding bosses are mostly concerned with the history of Zacharias points to the interpretation I have given (pl. xviii, 4).

25. An angel appearing to Zacharias. The two figures are separated by a moulding; Zacharias stands in a doorway with his two hands raised.

North Transept

Western Line

1. The Flight into Egypt. Our Lady sits on an ass with a black mane, and holds the Infant wrapped in swaddling clothes; the ass is emerging from a gateway and is led by St. Joseph; behind St. Joseph is part of a building with a loophole window.

2. An angel appearing to St. Joseph in a dream. St. Joseph is lying down and an angel stands beside him and takes his hand.

3. Herod orders the slaughter of the Innocents. Herod sits in a gold chair on the sinister side; three men in black and gold armour walk away from him; two have long swords, the third holds an axe with a long shaft with his right hand and has his left on a dagger in his belt (pl. xviii, 5).

4. The death of Herod. Herod lies on a red bed with a coverlet of gold and a white sheet turned down over it; he wears a crown. Behind the bed are three figures with expressions of grief on their faces; one is putting his hands to his eyes, the next has his hands clasped, and the third has one hand placed on his temple (pl. xviii, 6).

5. The Massacre of the Innocents. There are two men in armour and two women holding children; one of the soldiers is running a sword through one of the children.

6. The Massacre of the Innocents. Two men in armour are holding naked children, and two women are clasping their hands.

7. The Magi leaving Bethlehem. On the sinister are our Lady, holding the Infant, and St. Joseph; on the dexter the three Magi walking away. At the back is a thatched roof with a star on it, and two animals looking over a brick wall.

8. Herod inquiring of the Magi. On the sinister Herod sits with his ankles crossed; on the dexter are the three Magi holding cups; one of them is speaking with Herod.

9. Herod charging the Magi to return. Herod sits with his left leg crossed over his right knee; there is another figure behind; in front are the Magi, one of whom shakes hands with Herod.

10. The Magi adoring. Our Lady sits on the dexter holding the Infant; St. Joseph stands behind her. On the sinister are the three Magi; one, a bearded figure, kneels and presents an open cup into which the Infant dips His hand; a crown is on the ground between them; the other Magi stand behind the kneeling figure. At the back is a thatched gable roof with a star on the ridge; beneath it two animals are looking over a wall (pl. xviii, 7).

11. Herod consulting the chief priests and scribes (Matt. ii. 4). Herod seated in the middle with his legs crossed holds a book on his lap; several other men, mostly old and bearded, are grouped round; one carries a roll of parchment (pl. xviii, 8).

12. The Magi on horseback riding out of a gate; inside the gate and looking in the opposite direction to that in which the Magi are going is a head, meant probably for Herod.

13. The Shepherds. Three figures with gold crooks on black staffs.

14. An angel appearing to St. Joseph. On the sinister is a figure in a black hat turned up with ermine, and a gold robe with a red cloak; he holds a scroll on which are the words **I thanc god**. On the dexter is an angel with a scroll on which are the words **ihc marci**. There are conventional clouds above the figures (pl. xix, 1).

15. An angel appearing to St. Joseph. St. Joseph is on the dexter asleep with his head resting on his right hand; his black staff lies by his side; above him is an eight-pointed black and gold star on a dark ground.[1] On the sinister is an angel with long robe and narrow ermine tippet; he stretches out his right hand towards St. Joseph and in his left he holds a scroll inscribed with the words **god hufe marci** (pl. xix, 2).

16. Our Lady, on the dexter, is under an ogee arch and reads from a book which

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[1] Some of the details of St. Joseph's figure and the star are not visible in the photograph.

she holds, on which lettering is indicated; on the sinister, separated from our Lady by a vertical moulding, is an angel in doublet and narrow ermine tippet, and with bare legs; he stretches out a hand to St. Joseph who stands beside him with one hand raised (pl. xix, 3).

17. St. Joseph leading our Lady to the stable. In the foreground are the figures of an ox and an ass (pl. xix, 4).[1]

18. The angel returning to Heaven. On the dexter is the angel in doublet and bare legs, on the sinister is an arched doorway.

19. The arrival at Bethlehem. On the sinister is St. Joseph, on the dexter our Lady and another figure carrying a vase; in the centre is an arched doorway.

20. Our Lady and St. Joseph in the stable before the Nativity. Our Lady is kneeling with her hands raised and extended; there are clouds and rays close beside her; behind her is St. Joseph with his hands raised (pl. xix, 5).[2]

21. The angel at the gate of Heaven. He is in doublet with narrow ermine tippet, and has bare legs; he carries a mace, and enters into a doorway that has flanking turrets pierced with loopholes.

22. The Annunciation. Our Lady stands on the dexter in an arched doorway; on the sinister the angel, habited as in the last boss, kneels facing her; between them is a gold vase with a handle, and a lily growing out of it (pl. xix, 6).[3]

23. The Annunciation. On the sinister is our Lady and on the dexter the angel, habited as above; between them is a vase with two handles, and a lily growing out of it. The figures stand under a building that has angle turrets with small foliage bosses under them. Near our Lady is a book-rest with a book (?) on it (pl. xix, 7).

24. The Visitation. Two female figures; the one on the dexter has long hair, and there are golden rays behind her, so that she is evidently meant for our Lady (pl. xix, 8).

25. A group of eleven figures; perhaps the souls of the Innocents in heaven. They gaze upwards.

The following subject index to the bosses may be found useful; N or S stands for the north or south transept; c, e, or w for the central, eastern, or western line; the bosses in each line are numbered consecutively beginning with those nearest to the central tower.

Angel; appearing to St. Joseph N, c 1, 3, 19; e 18; w, 2, 14, 15, 16; S, w 1; appearing to Zacharias N, e 25; sent by God the Father N, c 22; e 21; returning to heaven N, w 18, 21; with Christ after the Temptation S, c 11. See also Annunciation and Shepherds.
Annunciation N, w 22, 23.
Apostles S, c 8, 10; e 9; w 9, 11, 25.

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[1] Bensly says there is another figure following the Virgin.

[2] I think this must be the explanation of this boss; Bensly thought the figure on the dexter was God the Father, but I think the wallet on the waist-band negatives this; he says the figure is crowned but I can see no sign of this. The subject has also been called the Conception but I know of no other instance of this subject apart from the Annunciation. Moreover, in this boss our Lady is represented as in an advanced stage of pregnancy.

[3] Bensly says that above in clouds and golden rays is God the Father crowned and holding a golden orb in one hand and blessing with the other; this is not visible in my photograph.

Baptism in the Jordan S, c 5, 13.
Centurion and servant S, e 20, 23, 24.
Circumcision of Christ N, e 10; S, w 7; of St. John the Baptist N, c 20.
Christ with St. John the Baptist S, e 13; with the doctors S, c 2, e 2; healing the sick and casting out devils S, c 22, 24, 25; e 5, 25; w 23; in the house of Peter's mother-in-law S, c 21; e 22; w 22; in the wilderness S, e 12; giving the Sermon on the Mount S, e 21; preaching in the Temple S, w 21; accused by the Jews S, w 24. See also under Apostles, Baptism, Feasts, Nativity, Presentation, Ships, &c.
Feasts, at Cana S, c 16; e 16; w 16; at Bethany S, e 19; in Matthew's house S, w 15; Herod's feast S, c 17, 19; unidentified S, c 14.
Finding in the Temple, etc. S, c 4, 6; e 3, 4, 6; w 2, 4, 5, 6.
Flight into Egypt N, c 5, 6; e 1, 2, 6, 17; w 1; S, e 1; w 3.
Herod N, c 2; e 3, 5, 11, 14; w 3, 4, 8, 9, 11, 12; S, c 15, 17, 18, 19; e 14; w 18, 19.
Innocents N, c 4; e 4; w 5, 6, 25.
John the Baptist N, c 20; e 19; S, c 3, 9, 12; e 4, 10, 11, 13, 14, 15, 17, 18; w 13, 14, 17, 18. See also Baptism in the Jordan.
Magi N, c 9, 10; e 7, 8, 9, 12; w 7, 10, 12.
Nativity, etc. N, c 15, 16, 17; w 17, 19, 20.
Presentation S, c 1, 7; e 7.
Shepherds N, c 7, 8, 11, 12, 14, 18; e 13, 16; w 13.
Ships S, c 8, 10, 20, 23; w 11, 20.
Temptation S, c 11; e 8; w 8, 10, 12.
Unidentified N, e 15.
Virgin, Blessed N, c 13, 19; e 22; w 16, 20; S, e 4. See also Annunciation, Circumcision, Finding, Flight, Nativity, Presentation, Visitation.
Visitation N, c 23; e 23; w 24.
Zacharias N, c 21, 24, 25; e 20, 24, 25.

IV.—*The Northfleet 50-foot Submergence later than the Coombe Rock of post-Early Mousterian times.*

By J. P. T. Burchell, *Esq., M.C., F.S.A.*

Read 3rd November 1932

Researches conducted during the past twenty years have definitely succeeded in establishing the sequence, both archaeological and geological, of the Boyn Hill or '100-foot' terrace of the Lower Thames. The culture-stages there represented are set out hereunder in ascending order, beginning with the oldest:

(1) Clactonian 1; these specimens, many of which are striated, have been derived from some earlier deposit not yet located:[1]
(2) Clactonian 2 and 3:[2]
(3) Acheulian:[3]
(4) Early Mousterian (Levalloisian A of mid-Pleistocene times).[4]

Thus the Chellian phase finds no place in the '100-foot' terrace of the Lower Thames and, accordingly, it must be relegated to a prior inter-glacial period, a postulate which receives confirmation in the sections exposed on the Norfolk coast.[5] Further, it has been demonstrated by discoveries made in the gravels on Dartford Heath,[6] that this '100-foot' submergence reached its maximum at approximately 140 ft. above O.D. Similar evidence is forthcoming from Slindon,[7] in Sussex, where marine beach-gravels situated at about 135 ft. above O.D. likewise contain Acheulian ovate implements.

The elevation of the land which followed the '100-foot' submergence of mid-Pleistocene times was about contemporary with the advent of Early Mousterian (Levalloisian B) Man. It continued, with pauses,[8] during which terraces were formed at progressively lower altitudes, until the river had cut its bed considerably below O.D. level, and culminated in the formation of the Sunk Channel no. 1 and the presence of Early Mousterian (Levalloisian C) Man.[1] Sometime during the second half of the period of elevation in question, Early Mousterian (Levalloisian B) Man occupied the factory-site at Baker's Hole, Northfleet,[2] situated at about 30 ft. above O.D. in a valley cut through the deposits of the '100-foot' terrace into the underlying Chalk. A renewed onset of glacial conditions gave rise, in the south of England, to the deposition of the Coombe Rock which overwhelmed the factory-site at Baker's Hole,[3] and caused Man once again to journey southwards.

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[1] Chandler, R. H., *Proc. Preh. Soc. East Anglia*, 1929, vol. vi, pt. 2, pp. 79–116.

[2] *Ibid.* Cook, W. H. and Killick, J. R., *Proc. Preh. Soc. East Anglia*, 1923, vol. iv, pt. 2, pp. 133–49.

[3] Smith, R. A. and Dewey, H., *Archaeologia*, 1913, vol. lxiv, pp. 174–204; 1914, vol. lxv, pp. 187-212.

[4] Burchell, J. P. T., *Proc. Preh. Soc. East Anglia*, 1931, vol. vi, pt. 4, pp. 255-8.

[5] Moir, J. Reid, *Man*, 1931, Sept., no. 188.

[6] *A Guide to the Antiquities of the Stone Age*, British Museum, 1926, p. 31.

[7] Calkin, J. B., *Nature*, 1932, vol. cxxx, p. 813.

[8] Hinton, M. A. C. and Kennard, A. S., *Essex Naturalist*, 1907, vol. xv, p. 66, and fig. 2. *Mem. Geol. Survey*, 'Dartford', 1924, p. 97. Dewey, H. and Smith, R. A., *Archaeologia*, 1923-4, vol. lxxiv, pp. 117–36.

It is the official view of H.M. Geological Survey that the Taplow or '50-foot' terrace feature at Crayford, Dartford, Thurrock, and Grays was closely connected with the Baker's Hole industry, and was anterior to the formation of the Coombe Rock.[4] Thus both the '100-foot' and the '50-foot' terraces are allocated to the same inter-glacial period. Such a contention, however, does not accord with the facts I have lately obtained.

Past investigators have observed the presence locally of some 10–20 ft. of brickearth covering the Coombe Rock of the Northfleet–Swanscombe area,[5] but they do not appear to have gathered any further information about the deposit. As the result of certain archaeological discoveries I had made in Ingress Vale (to be described in the second part of this paper) it became necessary to ascertain the culture-stage represented in, or at the base of, the brickearth in question. I therefore undertook an exhaustive examination of the post-'100-foot' terrace deposits situated between Northfleet and Swanscombe.

As has been noted above, the Coombe Rock overrode, at Baker's Hole, an occupation-floor of Early Mousterian (Levalloisian B) age. The characteristic artifacts on the site were large-sized flake-implements exhibiting faceted butts. With the amelioration of climatic conditions the surface of the Coombe Rock became channeled with water-courses occasioned by the melting of the snow upon the higher ground in the neighbourhood. Generally speaking, it may be said that the now dry, lateral valleys, which formerly drained into the Lower Thames, are lined with Coombe Rock, upon the surface of which these melt-water gravels rest. It has already been recorded that the gravels contain the weathered teeth and tusks of mammoth, and the teeth of rhinoceros and horse.[6]

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[1] Moir, J. Reid, *Proc. Preh. Soc. East Anglia*, 1930, vol. vi, pt. 3, pp. 182-3, and 211.

[2] Smith, R. A., *Archaeologia*, 1911, vol. lxii, pp. 515-32.

[3] *Ibid.*

[4] *Mem. Geol. Survey*, 'Dartford', 1924, p. 98. Dewey, H., *Proc. Preh. Soc. East Anglia*, 1930, vol. vi, pt. 3, pp. 147–55; *Quart. Journ. Geol. Soc.*, 1932, vol. lxxxviii, pp. 35-56.

[5] Dewey, H., *ibid.*, p. 49.

[6] Dewey, H., *Proc. Preh. Soc. East Anglia*, 1930, vol. vi, pt. 3, p. 149; *Quart. Journ. Geol. Soc.*, 1932, vol. lxxxviii, pp. 49-50, and fig. 7.

In consequence of a more systematic search I have succeeded in recovering therefrom a series of derived artifacts ranging in age from the Clactonian to the Early Mousterian (Levalloisian B) of Baker's Hole (fig. 1).

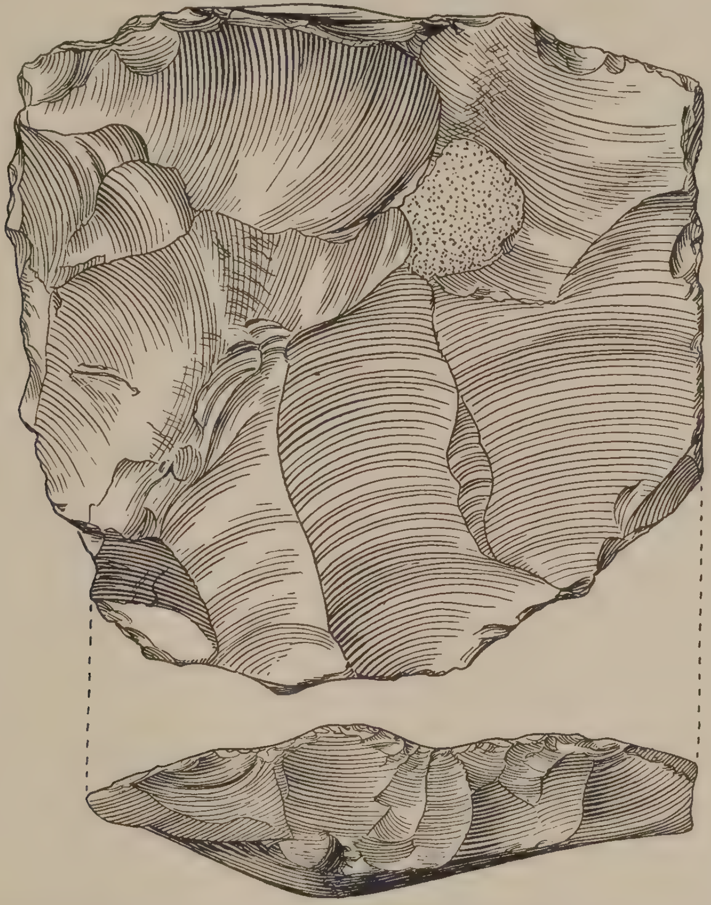

Fig. 1. Flake implement with faceted-butt; much abraded and showing light ochreous patination. From melt-water gravel capping Coombe Rock. Northfleet. Of the natural size. Early Mousterian.

It should be borne in mind that both Coombe Rock and deposits of the Taplow or '50-foot' terrace occur in the Dartford and Grays areas; and yet, in no single instance, has Coombe Rock been observed overlying the '50-foot' terrace. This fact, alone, suggests that the cutting of the shelf and cliff of the '50-foot' terrace occurred in post-Coombe Rock times, and not, as the geologists would have us believe, prior to the formation of that deposit. My investigation of the 10–20 ft. of brickearth which cover the Coombe Rock locally in the Northfleet–Swanscombe area took three directions:

(a) it sought to ascertain whether the deposit was due to sub-aerial agency, in which event its limits would not be determined by a shelf and cliff:

(b) it endeavoured to find traces of a shelf and containing cliff, which would prove the brickearth to be mainly the result of aqueous deposition:

and (c) it searched for archaeological evidence at the base of the brickearth whereby comparison might be made with the implements found in the '50-foot' series at Crayford[1] and its relationship proved to the Upper Palaeolithic industries.

As the result of my observations I have established that the brickearths capping the Coombe Rock and its associated melt-water gravels, and situated within a radius of a mile and a half from Swanscombe, belong, in part, to two phases of the same inter-glacial period. The brickearths of the earlier phase reach an elevation of approximately 75 ft. above O.D. and are bounded by a steep cliff some 50 ft. high, cut through the Coombe Rock and its associated melt-water gravels and down into the underlying solid Chalk.

The brickearths of the latter phase, however, are not restricted in distribution by any prescribed boundary. That their formation is due to sub-aerial agency is proved by their contained molluscan fauna which is composed exclusively of land types, and by the absence of a shelf and containing cliff.

Both the older and younger brickearths are anterior in age to the glacial phase responsible for the deposition of the 'trail', and/or the stony loam containing 'rafts' of Coombe Rock.

The object of the present paper is to describe certain critical sections exposed in these two sets of brickearth, and to analyse the archaeological and faunistic evidence which they have yielded.

The Brickearths of the Earlier Phase

Situated to the west of the Ebbsfleet, midway between Northfleet and Swanscombe, there occurs a thick and widespread area of the older post-Coombe Rock brickearth. As the result of former commercial enterprise and the excavations that I have personally conducted, the vertical succession of the deposits has been ascertained to be comprised as under:

(h) Surface soil:

(g) Stony loam containing an occasional 'raft' of Coombe Rock. This deposit is to be equated with the 'trail'.

(f) Brickearth, with surface-level at about 75 ft. above O.D., and showing eroded upper surface:

(e) Gravel containing Chalk fragments and small pieces of shells derived from the Tertiary beds:

(d) Brickearth:

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[1] Spurrell, F. C. J., *Quart. Journ. Geol. Soc.*, 1880, vol. xxxvi, pp. 544-8. Chandler, R. H., *Proc. Preh. Soc. East Anglia*, 1915, vol. ii, pt. 2, pp. 240-8.

(c) Gravel composed almost exclusively of Tertiary pebbles and sometimes forming a ferruginous pan. Small pieces of shells derived from the Tertiary beds are scattered throughout the deposit:

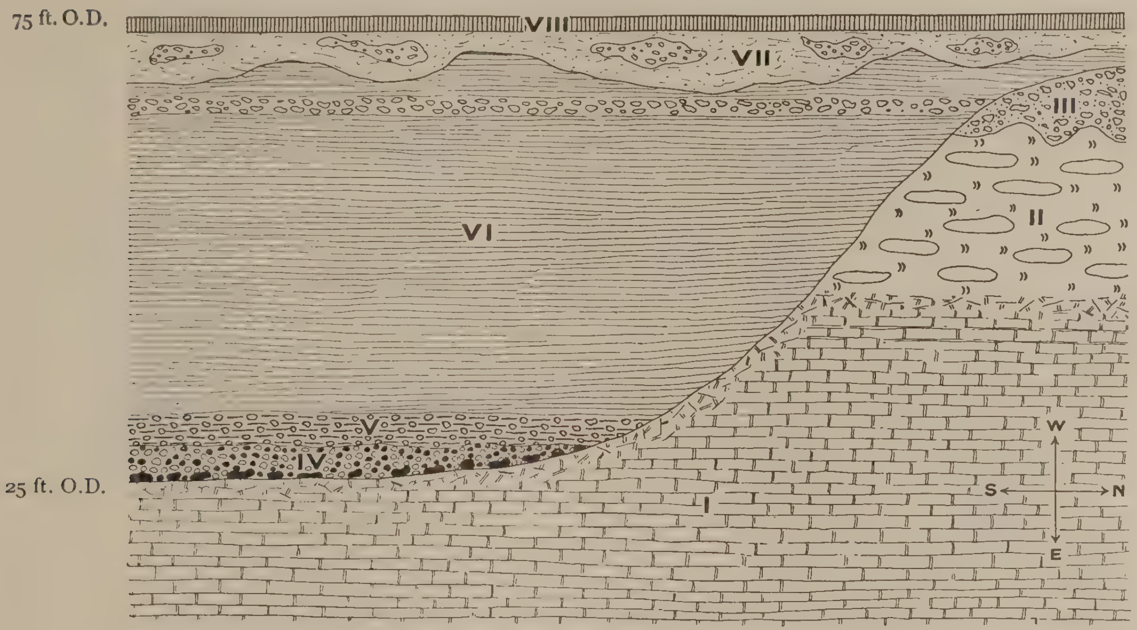

Fig. 2. Diagrammatic sketch, not drawn to scale, showing the geological sequence of the '50-foot' terrace later than the Coombe Rock of post-Early Mousterian times and its relation to the neighbouring deposits. Northfleet-Swanscombe site.

VIII. Surface soil at 75 ft. above O.D.
VII. Stony loam containing 'rafts' of Coombe Rock.
VI. Brickearths of the '50-foot' series separated by a thin layer of gravel.
V. Gravel of the '50-foot' series composed of Tertiary pebbles and small pieces of shells derived from the Tertiary beds.
IV. Gravel of the '50-foot' series composed of flint and chalk and small pieces of shells derived from the Tertiary beds, often brecciated, with base level at 25 ft. above O.D.
III. Melt-water gravels of the Coombe Rock glaciation.
II. Coombe Rock.
I. Chalk with shattered or disintegrated surface.

The Middle Mousterian implements are located in deposits IV and V.

(b) Gravel formed of Tertiary pebbles, lumps of chalk, nodules of fresh flint of varying size derived from the underlying chalk, and rolled and patinated flints both small and large which have been washed out from the Coombe Rock and earlier Pleistocene gravel spreads. It contains small pieces of shells derived from the Tertiary beds. The basal parts of the gravel are often locally cemented into a tough breccia. The base of the deposit stands at about 25 ft. above O.D.

(a) Chalk, the uppermost portion of which has been shattered and now consists of a rubble.

Except for the Associated Portland Cement Manufacturers having undertaken large-scale quarrying operations which, in places, coincided with the periphery of this brickearth, the full significance of the series of deposits just described would not have been appreciated.

It will be observed that I have recorded the base of the gravels as lying at 25 ft. above O.D., whilst the surface of the brickearths is shown to occur 50 ft. higher. These facts by themselves offer little indication whether or not the brickearths feather out where their distribution ceases. On their northern boundary the brickearths of the older series rest against the eroded and truncated deposits of the Boyn Hill or '100-foot' terrace situated immediately to the south of Rickson's Farm; but, at their eastern margin, in the large chalk pit located north of New Barn and east of Southfleet Road, Swanscombe, a high-angled cliff has been revealed against which the upper brickearth of the older series may be seen banked. The cliff is composed of Coombe Rock overlying chalk; the surface of the latter is much shattered and constitutes a rubble. A view of this cliff is shown in pl. xx, 1.

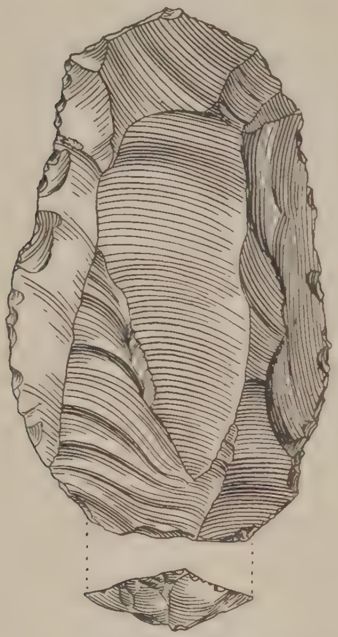

Fig. 3. Flake-implement showing faceted-butt and edge-trimming; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

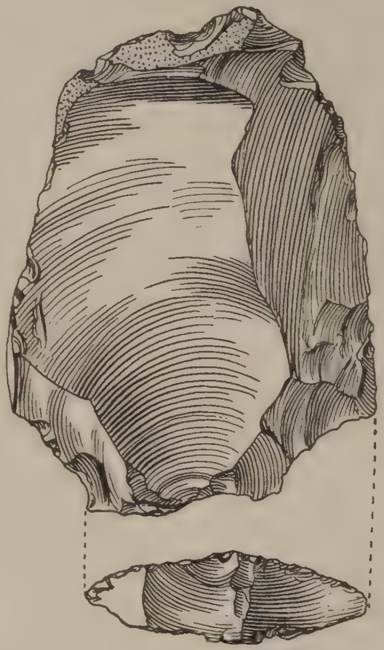

Fig. 4. Side-scraper with faceted-butt; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

Within a very short distance eastwards excavations have proved the rock shelf to occur at 50 ft. below the top of the containing cliff. The accompanying diagram (fig. 2) clearly indicates the relation of the various deposits to the shelf and cliff.

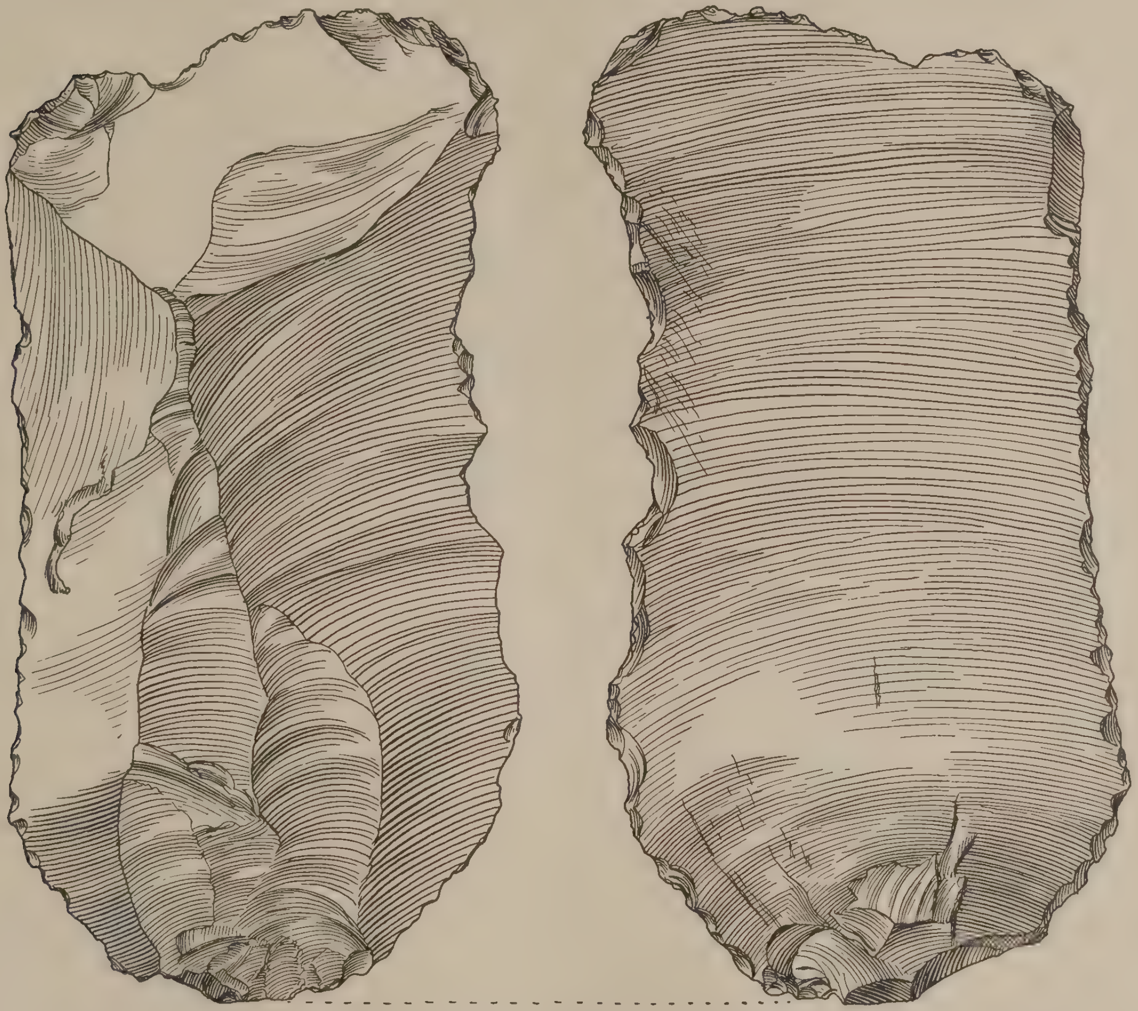

Fig. 5. Double side-scraper made from a flake; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

From the gravel deposits IV and V, which are situated at the base of this fluviatile terrace, I have recovered the bones and teeth of *Elephas primigenius*, Blum., *Rhinoceros antiquitatis*, Blum., and *Equus*, whilst, in addition, I have found a large series of flint implements which fall into the three following groups:

(1) A few much-rolled artifacts derived from the Boyn Hill or '100-foot' terrace;

(2) Less abraded specimens of Early Mousterian (Levalloisian B) age, which have been washed from the adjacent Coombe Rock and its associated melt-water gravels;

(3) Unrolled implements constituting a Middle Mousterian (Levalloisian D) industry.

This Levalloisian D culture-stage is of considerable interest since it represents the transitional stage between pure Levallois technique of Baker's Hole (Levalloisian B) and that of Upper Mousterian (Levalloisian E) times. The type tool is a broad flake with edge trimming on both faces. These flake-implements (figs. 3-8) range from 1-6 in.[1] in length, and have been struck off in one of three ways. They have been detached either from unprepared nodules

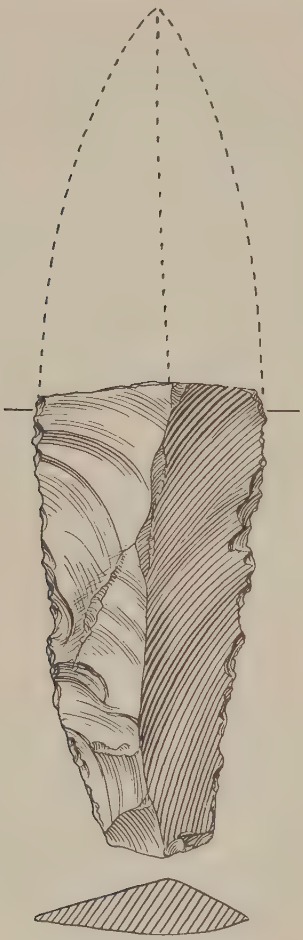

Fig. 6. Broken blade made from a flake; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet-Swanscombe site. Of the natural size. Middle Mousterian.

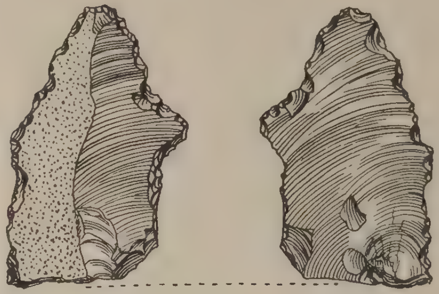

Fig. 7. Flake-implement; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet-Swanscombe site. Of the natural size. Middle Mousterian.

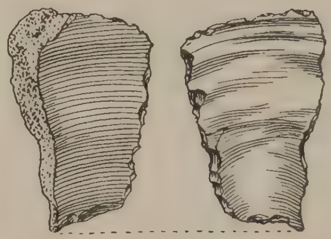

Fig. 8. Side-scraper made from a flake; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet-Swanscombe site. Of the natural size. Middle Mousterian.

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[1] For a comparable series of small side-scrapers see the British Museum Collection from la Cotte de St. Brelade, Jersey.

of flint, from simple cores, or else from degenerate tortoise-cores (fig. 9). Some of the flakes have been worked into points (figs. 10–12), one of which, with its steep edge working, possesses strong Aurignacian characteristics (fig. 13).

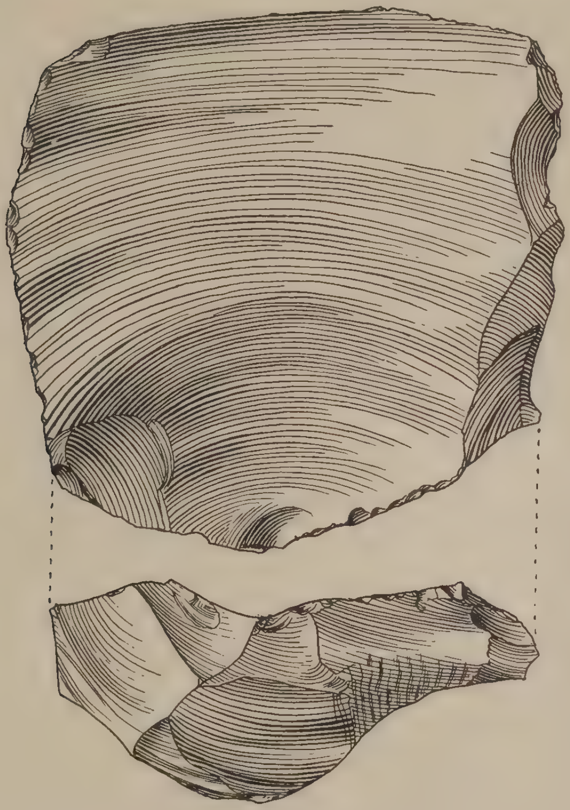

Fig. 9. Struck tortoise-core; unrolled and showing a faint blue patination upon the under surface. From gravel at the base of the '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

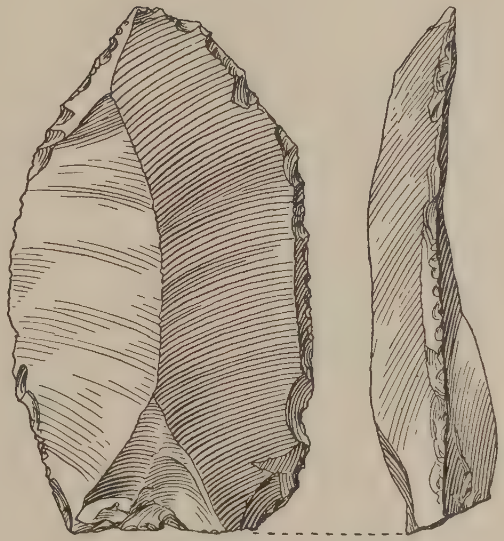

Fig. 10. Point; unrolled; faintly tinged with blue. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

Another marked Aurignacian feature of this industry is the occurrence of gravers of several varieties (figs. 14–16) and squamous flakes (fig. 17). The specimens of the same date as the gravel are, for the most part, unrolled and unpatinated, though in certain instances incipient cones of percussion may be observed, whilst a light-blue patination has developed on some of the artifacts.

The layer of gravel, which divides the brickearth into two portions, has yielded but few implements. Examples resemble those found in the gravels underlying the brickearth, and are of Middle Mousterian (Levalloisian D) age (fig. 20).

Above I have referred to the implements recovered from the melt-water gravels of the Coombe Rock glaciation, deposit III; whilst those from the stony loam containing 'rafts' of Coombe Rock, deposit VII, will be described in the second part of the paper. When an examination is made of the classic site at Crayford, it will at once be noticed how closely the sequence of events recorded there corresponds with the one just detailed. It can be observed how, after the deposits of the Boyn Hill or '100-foot' terrace were formed, there followed a period of land elevation succeeded by a phase of cliff cutting. The period of cliff formation was followed by the deposition of gravel, brick-earth, gravel containing fluviatile and land shells of unusually large size, and

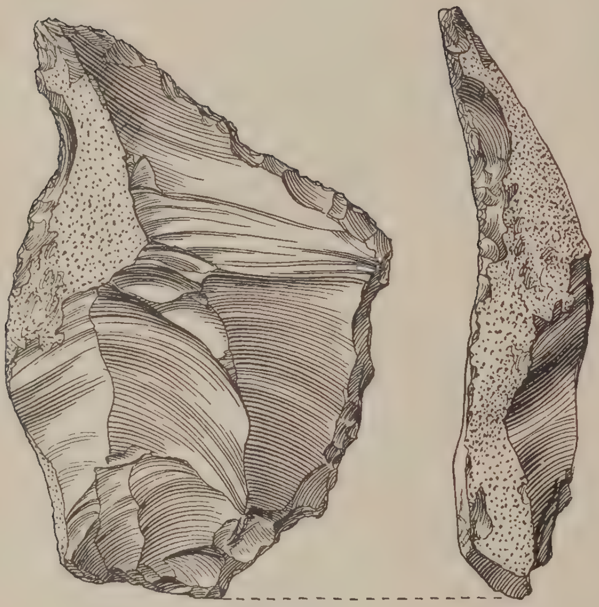

Fig. 11. Flake-implement worked to a point; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

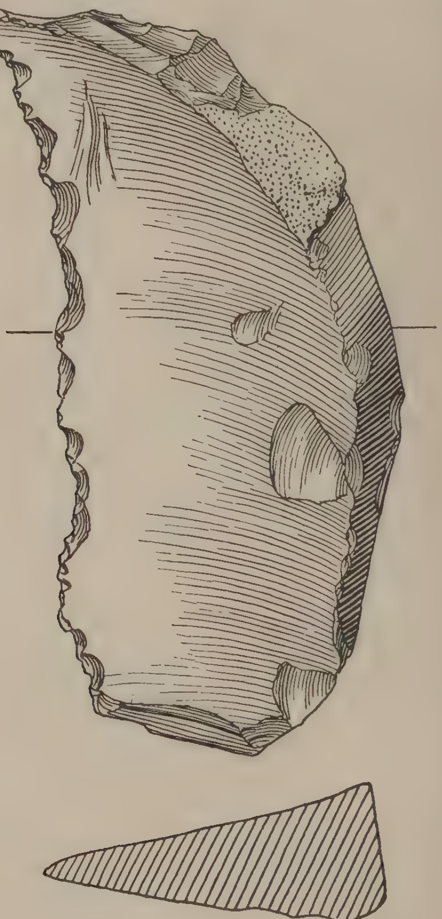

Fig. 12. Point of Abri Andi type made from a flake; unrolled and showing faint blue patination on part of under surface; slightly lustrous surfaces. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

then further brickearth. How much, if any, of the upper brickearth at both sites owes its origin to sub-aerial agency is a matter for conjecture. In both instances, however, fluviatile action must have been responsible for the cutting of the containing cliff against which the deposits are banked and for the laying down of the gravel that contains fluviatile shells. The faunal remains found in the Crayford deposits indicate a cold climate during the formation of the basal layers,[1] warmer conditions for the middle portion,[2] and a return to cold

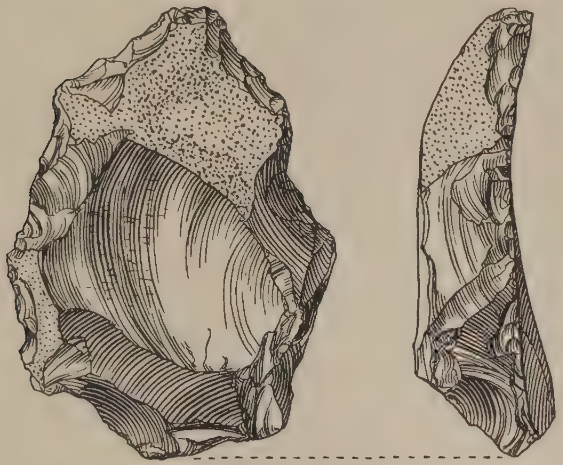

Fig. 13. Nosed flake with steep edge-working; unrolled and unpatinated; slightly lustrous surfaces. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

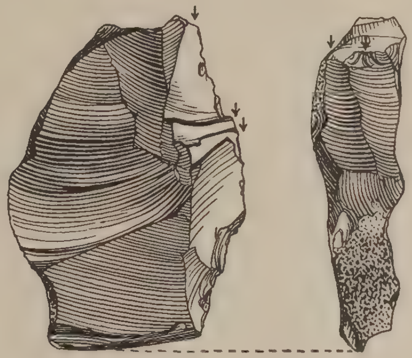

Fig. 14. Graver made from a flake; unrolled and unpatinated. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

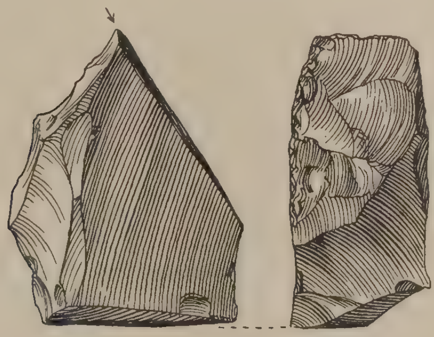

Fig. 15. Graver made from flake; unrolled and unpatinated; slightly lustrous surfaces. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

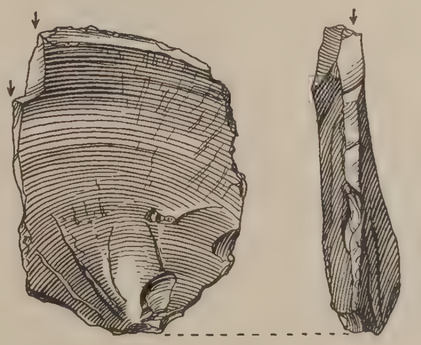

Fig. 16. Graver made from a flake showing two sharpenings; unrolled and unpatinated; slightly lustrous surfaces. From gravel at base of '50-foot' series. Northfleet–Swanscombe site. Of the natural size. Middle Mousterian.

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[1] *A Guide to the Antiquities of the Stone Age*, British Museum, 1926, p. 35.

[2] *Mem. Geol. Survey*, 'Dartford', 1924, p. 100.

in the upper part.[1] Like the Northfleet–Swanscombe site the base of the Crayford section has yielded contemporary flake-implements of Middle Mousterian (Levalloisian D) age struck from degenerate tortoise-cores, and associated with *Rhinoceros antiquitatis*, Blum., etc.[2]

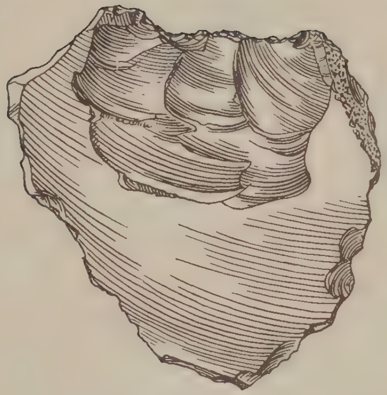

Fig. 17. Squamous flake; unrolled and unpatinated; lustrous surfaces. From gravel at base of '50-foot' series. Northfleet-Swanscombe site. Of the natural size. Middle Mousterian.

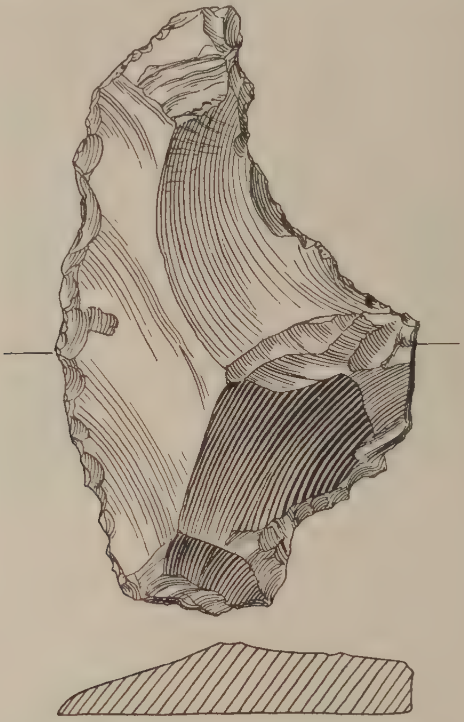

Fig. 18. Flake-implement; unrolled and unpatinated; slightly lustrous surfaces. From gravel at base of '50 foot' series. Northfleet-Swanscombe site. Of the natural size. Middle Mousterian.

The deposit of stony loam containing 'rafts' of Coombe Rock which is present in the Northfleet–Swanscombe area is replaced at Crayford by the 'trail', a tough, stony loam, formed from a slurry of London Clay, Tertiary Sand, and Tertiary pebbles.[3] This 'trail' never overlies the next younger terrace, that of the Low or '25-foot' level.[4]

The official geological view being that the 'trail' is contemporary with the Coombe Rock,[5] the necessity has naturally arisen for assigning the Taplow or '50-foot' deposits of Crayford, Erith, Thurrock, and Grays to the inter-glacial period immediately preceding the formation of the Coombe Rock.[1] The discoveries at the Northfleet–Swanscombe site, just described, conclusively demonstrate this correlation to be erroneous, as does the spread of Coombe Rock, situated east of Perry Street and north of the railway line, which has been truncated by the Crayford series. When, however, an examination of the deposits on the left bank of the Thames is made in the light of this fresh information, it will be noticed that there is sufficient evidence for again

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[1] Chandler, R. H., *Proc. Geol. Assn.*, 1914, vol. xxv, p. 67.

[2] Chandler, R. H., *Proc. Preh. Soc. East Anglia*, 1915, vol. ii, pt. 2, pp. 240–8.

[3] Chandler, R. H., *Proc. Geol. Assn.*, 1914, vol. xxv, pp. 66–7.

[4] *Mem. Geol. Survey*, 'Dartford', 1924, p. 98.

[5] *Mem. Geol. Survey*, 'London District', 1922, pp. 59–62; 'North London', 1925, p. 50. *A Guide to the Antiquities of the Stone Age*, British Museum, 1926, p. 14. Sandford, K. S., *Geol. Mag.*, 1932, vol. lxix, Jan., p. 15.

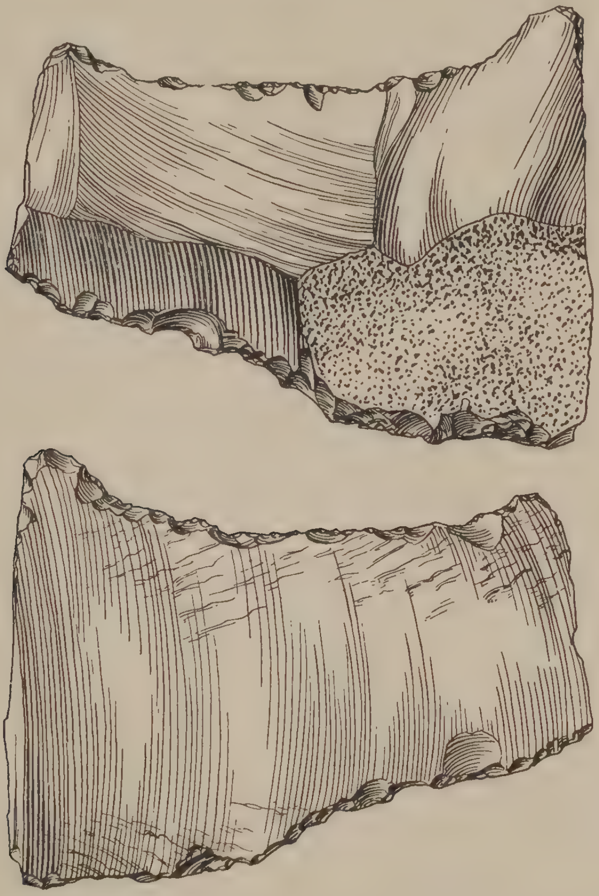

Fig. 19. Combined hollow- and side-scraper made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From gravel at base of '50-foot' series. Northfleet-Swanscombe site. Of the natural size. Middle Mousterian.

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[1] *Mem. Geol. Survey,* 'London District', 1922, p. 60; 'South London', 1921, p. 54; 'Dartford', 1924, p. 106. Sandford, K. S., *Geol. Mag.*, 1932, vol. lxix, Jan., p. 13. Boswell, P. G. H., *Brit. Assn. Rep.*, York, 1932, Pres. Address, Section C, p. 80.

disregarding the official geological conclusion. For there, also, the Coombe Rock never overlies the deposits of the Taplow or '50-foot' terrace.

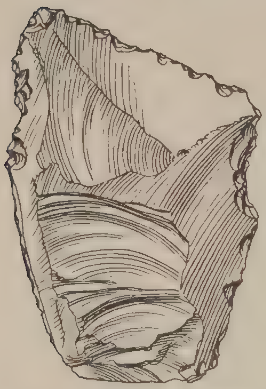

Fig. 20. Flake-implement; unrolled and unpatinated. From gravel separating the brickearths of the '50-foot' series. Northfleet – Swanscombe site. Of the natural size. Middle Mousterian.

This is a fact rendered still more noteworthy when it is remembered that the Coombe Rock is regarded as the equivalent of the 'trail'. On the Essex side of the river, despite the great extent of the Chalk, there is but a very limited distribution of Coombe Rock, whereas the Taplow or '50-foot' terrace deposits are widely represented. This would suggest that the Coombe Rock had been denuded away during the process of the formation of the Taplow terrace: a supposition that receives full confirmation in sections exposed a short distance to the south of Belmont Castle, Grays, where Coombe Rock is shown to be truncated by brickearth of the '50-foot' series.[1] Further, a noticeable feature of the basal gravel of the Taplow terrace is its hard, chalky, and often brecciated state;[2] which condition, I would suggest, is due to the disintegration of the Coombe Rock against which these deposits were accumulated. Thus there is evidence, both geological and archaeological, that the deposits composing the Taplow or '50-foot' terrace of the Dartford and Grays areas follow the Coombe Rock glaciation, and that their formation coincided with the period during which Middle Mousterian (Levalloisian D) Man flourished.

Following upon the maximum submergence of the '50-foot' terrace of post-Coombe Rock times, the land again began to rise, with the result that the gravels and brickearths of the Crayford series became truncated as the river lowered its bed. This renewed phase of land elevation witnessed the formation of the younger, and often sub-aerial, brickearths, and continued until the return of glacial conditions occasioned the formation of the 'trail' and/or the stony loam containing 'rafts' of Coombe Rock.

The Brickearths of the Later Phase

The deposits in question may best be studied in the two adjacent valleys of the Thames described hereunder. The general structure of these lateral valleys is invariably the same. They owe their initial formation to the land elevation which succeeded the maximum submergence of the Boyn Hill or '100-foot' terrace, and they have been cut through these gravels down into the underlying 'solid'. Upon the return of glacial conditions these valleys became choked with Coombe Rock; but with the amelioration of the climate, melting snow and ice caused extensive denudation of this Coombe Rock (fig. 21, deposit A) and deposited upon its eroded surface a coarse, and generally unstratified, gravel (fig. 21, deposit B). The fresh period of depression, resulting in the formation of the Taplow or '50-foot' series of Crayford, Dartford, Thurrock, and Grays, refilled these channels to a limited extent (fig. 21, deposit C). This was the epoch characterized by the Middle Mousterian (Levalloisian D) industry described above. A renewed period of land elevation witnessed the retreat of the water from the lateral channels as the main river cut its bed at progressively lower levels. It was during this time that the sub-aerial brickearths of the later phase (fig. 21, deposit D) were accumulated, a boreal period, as will be shown, when Upper Mousterian (Levalloisian E) and Aurignacian Man flourished. The oncoming of a further glacial phase not only brought these industries to a close, but it caused the formation, within the Tertiary areas, of the 'trail', and, in the Chalk districts, of the stony loam containing 'rafts' of Coombe Rock (fig. 21, deposit E, and pl. xx, 2). Thereafter, a period of submergence set in when the deposits of the Low or '25-foot' terrace were laid down and Solutrian Man had established himself in this

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[1] *Mem. Geol. Survey*, 'Dartford', 1924, p. 107.

[2] *Ibid.*, pp. 100-1.

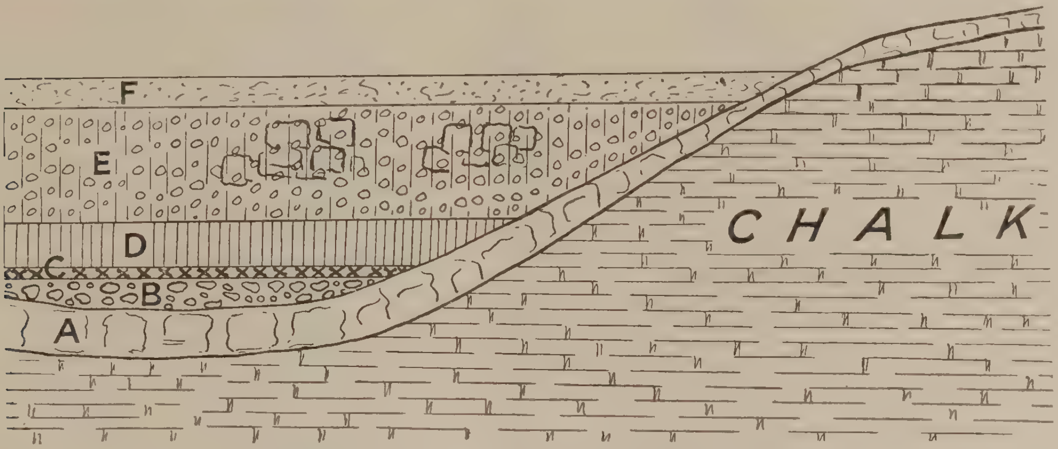

Fig. 21. Diagrammatic section, not drawn to scale, showing the geological sequence in the central portion of the lateral valleys of the lower Thames in the neighbourhood of Swanscombe.

F. Surface-soil and/or alluvium. Holocene.
E. Stony loam containing 'rafts' of Coombe Rock and/or the 'trail'. Late-Pleistocene.
D. Sub-aerial brickearth and/or fluviatile loam. Aurignacian and Upper Mousterian.
C. Brickearth and gravel of the '50-foot' series. Middle Mousterian.
B. Melt-water gravels of the Coombe Rock glaciation.
A. Coombe Rock lining the bottom of the valleys. Mid-Pleistocene.

Chalk cut through during Lower Palaeolithic times.

country;[1] it was then that the surface soil (fig. 21, deposit F) began to be formed (see figs. 22–3). Though no further change occurred in the middle and upper parts of these lateral valleys the main river underwent considerable modifications; for, following the '25-foot' submergence, with the Magdalenian horizon situated upon the surface of its terrace,[2] a prolonged period of land elevation ensued. And it was during this rise of the land that the Sunk Channel no. 2, with its boreal flora and fauna, was cut, the river lowering its bed from about 25 ft. above O.D. to some 75 ft. below O.D. in the process.[3] Thereafter, intermittent submergence, occupying a wide range of time, caused the Sunk Channel to become refilled to approximately 15 ft. above O.D.,[4] so that, in certain instances, the lower portions of the lateral valleys became overwhelmed by Holocene alluvia.[5]

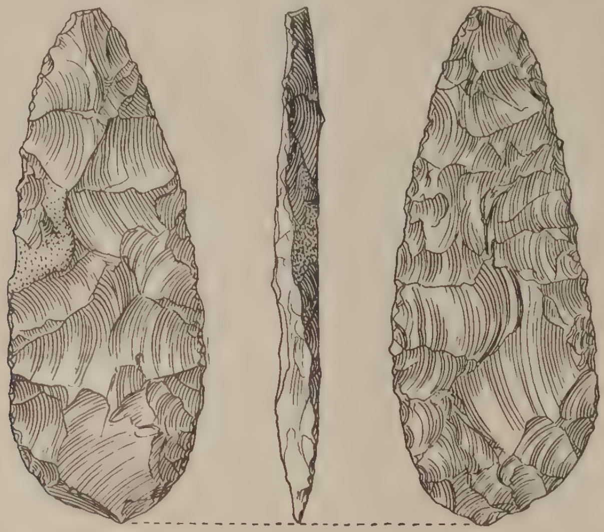

Fig. 22. Blade made from a flake (the remains of the striking-platform may be observed at the tip of the specimen); unrolled and unpatinated. From surface-soil capping deposits of the '100-foot' or Boyn Hill terrace. Barrack Pit, Swanscombe. Of the natural size. Solutrian.

Owing to quarrying undertaken by the Associated Portland Cement Manufacturers the valley running northwards for one and a half miles from Beechin Wood Cottages, adjoining the south side of Watling Street, down to Greenhithe may be examined both in cross and longitudinal section. The bottom of the valley is lined with Coombe Rock, and upon this rest its associated melt-water gravels. The deposits of the '50-foot' terrace of Crayford, etc., are represented in this valley by a small lateral channel, approximately 36 yards wide, filled with gravel and brickearth to about 9 feet in the centre, situated east of Stone Castle, and occupy an intermediate position between that of the '100-foot' sequence and the later brickearths. This channel, which occupies a hollow eroded in the Coombe Rock, is bounded on both flanks by Coombe Rock. The sub-aerial brickearth (fig. 21, deposit D), which here attains a maximum thickness of 5 ft., is not restricted in distribution to any particular level, neither is it bounded by a containing cliff as in the case of a terrace deposit. Instead, it may be traced at any altitude within the confines of the valley down to sea-level, where it passes beneath the alluvium; whilst, at its periphery, it may be seen to feather out. This sub-aerial brickearth, which averages 3 ft. 6 in. in depth and is almost entirely devoid of stones, may be subdivided into five parts which pass from one into another without any line of separation. At its base the deposit is highly calcareous; then comes a dark band, less calcareous, containing particles of decayed vegetation and charred fragments, which represents an old land surface; resting on this is 1 ft. or so of highly calcareous brickearth. Above, the brickearth is again less calcareous, whilst the top foot or so of the deposit would appear to be devoid of chalk. That these brickearths are of sub-aerial origin is proved, apart from other considerations, by the nature of the molluscan fauna which I have found them to contain. The shells, though occurring in large numbers in the more calcareous portions of the brickearth, are extremely scanty in the uppermost part of the deposit where *Pupa muscorum*, Linn., and *Coecilioides acicula*, Müll., are the only types so far found.

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[1] Abbott, W. J. L., *Proc. Geol. Assn.*, 1892, vol. xii, pp. 346–56. Layard, Nina F., *Antiq. Journ.*, 1927, vol. vii, pp. 512–14, and fig. 8.

[2] *Mem. Geol. Survey*, 'South London', 1921, p. 57. Layard, Nina F., *Antiq. Journ.*, 1927, vol. vii, pp. 500–10.

[3] Burchell, J. P. T., *Proc. Preh. Soc. East Anglia*, 1931, vol. vi, pt. 4, pp. 298–301.

[4] Burchell, J. P. T., *ibid.*, 1927, vol. v, pt. 3, pp. 288–96.

[5] Kennard, A. S., and Woodward, B. B., *Proc. Geol. Assn.*, 1901, vol. xvii, pp. 221–2.

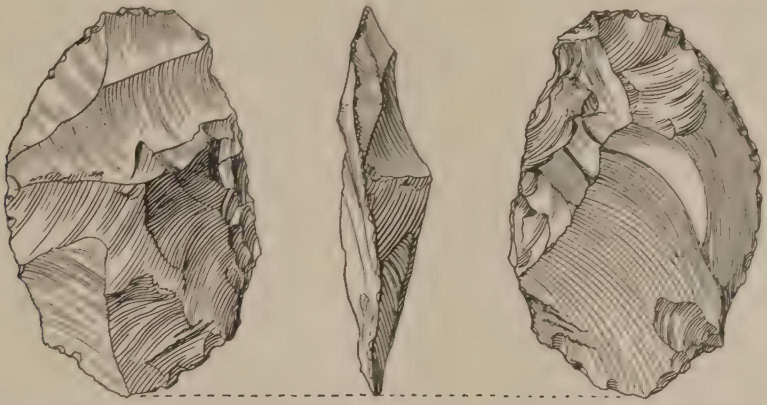

Fig. 23. Hand-axe made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From surface-soil capping deposits of the '100-foot' or Boyn Hill terrace. Barrack Pit, Swanscombe. Of the natural size. Solutrian.

The types of shells recorded in the table hereunder belong exclusively to those of land species:

Helicella striata, Müll., very common.
Retinella pura, Ald.
Limax arborum, Bouch. Chant.
Helicella cellaria, Müll.
,, *nitidula*, Drap.
Trochulus hispidus, Linn.
Cochlicopa rubrica, Müll.
Pupa muscorum, Linn., common.
Carychium minimum, Müll.
Acanthinula aculeata, Müll.
Vallonia costata, Müll.
,, *excentrica*, Sterki.
Vitrea crystallina, Müll.
Goniodiscus rotundatus, Müll.
Xerophila itala, Linn.
Cepaea nemoralis, Linn.
Coecilioides acicula, Müll.
Clausilia rugosa, Drap.
Pomatias elegans, Müll., common.

The predominant type of shell recovered from the lower and more calcareous portions of the brickearth is *Helicella striata*, Müll., (fig. 24), which is a common fossil in the Pleistocene of Germany, especially in the upper Loess [1]; it is unknown in Great Britain after the close of Pleistocene times and thus constitutes, in England, a zone fossil. The uppermost part of the brickearth is characterized by the occurrence of *Pupilla muscorum*, Linn., and the absence of *Pomatias elegans*, Müll., thus affording evidence that climatic conditions had again deteriorated.[2] Attention should be drawn to the fact that none of the sixteen types of Holocene shells which are unknown in the English Pleistocene [3] finds a place in this list, so that an Upper Palaeolithic date for the land surface, inter-stratified between the more calcareous brickearths, is assured. In addition to the shells, I have found the deposit to yield a few flint flakes, cores, and calcined flints; these specimens, some of which exhibit a thick white patination, have all the appearance of being waste material of Upper Palaeolithic cultures. Capping the sub-aerial brickearths is a calcareous, stony deposit, which, in places, develops to 4 ft. in thickness. This bed sometimes shows a sharp line of division from the underlying sub-aerial brickearths, when the shells in it form a marked contrast to those from the latter deposits, for whereas *Helicella striata*, Müll., is absent, no less than five of the types unknown in the English Pleistocene occur.[4]

The second of these valleys under consideration lies immediately to the east and is called Ingress Vale. It is three-quarters of a mile long, and is flanked on the high ground to the north by the deposits of the Boyn Hill or '100-foot' terrace of Knockhall and to the south by the like deposits of Barnfield, Swanscombe. Quarrying by the Associated Portland Cement Manufacturers has exposed a longitudinal section throughout the length of the valley, whilst at two points the cross-section is admirably revealed. The geological strata exposed in the centre of the valley comprise a succession of the utmost importance, for there the whole sequence of events is recorded from the period of land elevation which occasioned the cutting of the valley through the Boyn Hill or '100-foot' terrace deposits into the underlying Thanet Sand and Chalk to approximately 30 ft. above O.D. until the formation of the surface soil of Holocene times. Thus a definite connecting link is established between the earlier and later stages of the inter-glacial period which succeeded the Coombe Rock glaciation of post-Early Mousterian times.

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[1] Kennard, A. S., and Woodward, B. B., *Proc. Geol. Assn.*, 1922, vol. xxxiii, p. 135.

[2] Abbot, W. J. L., *Quart. Journ. Geol. Soc.*, 1894, vol. l, pp. 171–87. Kennard, A. S., *Proc. Preh. Soc. East Anglia*, 1915, vol. ii, pt. 2, pp. 257-8.

[3] Kennard, A. S., *Proc. Malac. Soc.*, 1923, vol. xv, pt. 5, p. 246.

[4] Kennard, A. S., and Woodward, B. B., *Proc. Geol. Assn.*, 1901, vol. xvii, pp. 221-2.

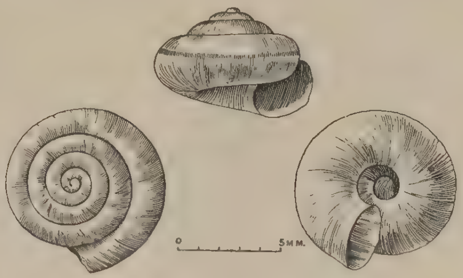

Fig. 24. *Helicella striata*, Müller. From sub-aerial, calcareous brickearth. Bean-Greenhithe valley. Of Upper Mousterian/Aurignacian age.

Lining the bottom of the valley and extending a short way up its sides is Coombe Rock to a thickness of 6 ft. (pl. xx, 2, deposit A), surmounted, in places, by a small accumulation of its associated, coarse, melt-water gravels (pl. xxi, 1, deposit B). Resting on this are a few inches of Tertiary pebble gravel, characteristic of the Northfleet–Swanscombe site described above, capped by 2 ft. or so of brickearth (pl. xx, 2, deposit C). In places this brickearth contains thin layers of gravel composed of Tertiary pebbles and small pieces of shells derived from the Tertiary beds. Both these deposits belong to the period of submergence responsible for the deposition of the Crayford series of the Taplow or '50-foot' terrace of Middle Mousterian (Levalloisian D) times. The succeeding period of land elevation coincided, as has already been demonstrated, with the extensive formation of sub-aerial deposits. In Ingress Vale these consist of a brown brickearth (pls. xx, 2, and xxi, 1 and 2, deposit D), accumulated, without doubt, as the result of the sub-aerial denudation of the immediately underlying brown brickearth of the Crayford series. The sub-aerial brickearth, which is 3 ft. 6 in. thick, shows a marked tendency to cleave vertically. That an occupation level existed upon the surface of the underlying Crayford series is established by the occurrence at the base of, and extending up into, the sub-aerial brickearth, of flint implements characteristic of the Upper Mousterian (Levalloisian E), Aurignacian, and proto-Solutrian culture-phases, in addition to fragments of burnt material, calcined flints, and pieces of coarse pottery. The finished specimens occur sparingly in the deposit, and may be classified as follows: flakes with faceted butts, flakes and scrapers exhibiting one, two, or three 'encoches' (figs. 25–6), scrapers of various types (figs. 27–32), points (fig. 33), gravers (figs. 34–5), choppers (fig. 36), and fabricators (fig. 37). Hammer-stones are extremely rare, but waste flakes and cores are scattered

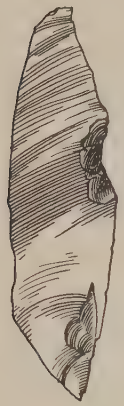

Fig. 25. Flake showing one 'encoche'; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

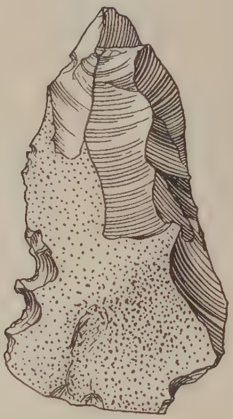

Fig. 26. Flake showing two 'encoches' separated by a spur; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

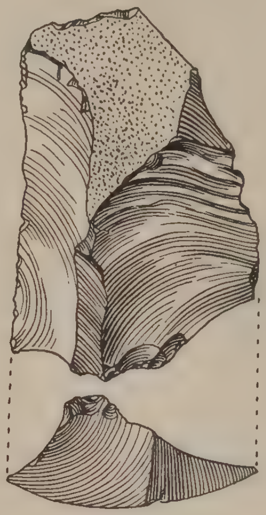

Fig. 27. Side-scraper made from a flake, showing faceted butt; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

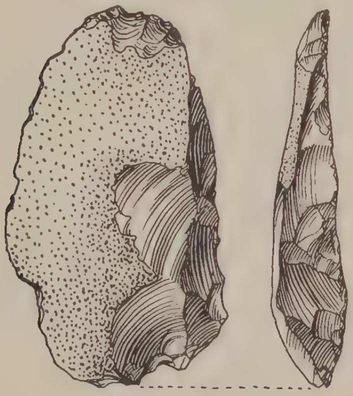

Fig. 28. Combined end- and side-scraper made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

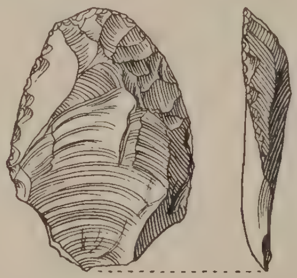

Fig. 29. Combined end- and side-scraper made from a flake; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

plentifully through the deposit in the vicinity of the various occupation sites. The artifacts are in an unaltered condition with the exception of a very limited number of flakes exhibiting a light-blue patination. That these specimens are earlier than the unpatinated 'floor' pieces is proved by some of them having been re-worked during the 'floor' period. I am of the opinion that the blue patinated examples are closely connected with the Middle Mousterian (Levalloisian D) period, and that they have been derived from the underlying brickearth which belongs to the Taplow or '50-foot' terrace.

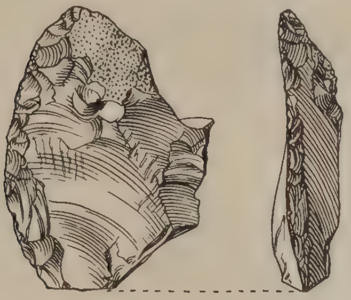

Fig. 30. Side-scraper made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

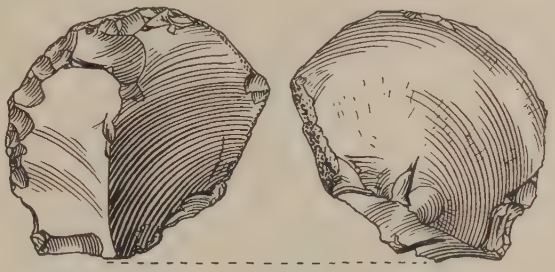

Fig. 31. Segmental scraper made from a flake and showing 'encoche' upon right-hand side of under-surface; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

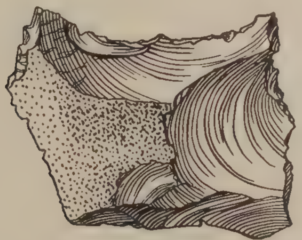

Fig. 32. Hollow-scraper made from a flake; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

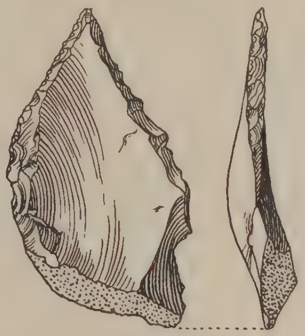

Fig. 33. Point made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

The largest of the pieces of pottery is not more than one and a half inches wide. The pottery is of a coarse texture, being buff, red, or black in colour, and contains small inclusions of crushed flint. The discovery of pottery of Upper Palaeolithic age has only been recorded from one other site in this country, where, as might be expected, the implements are similar.[1] From an examination of the portions recovered both at Ipswich and at Ingress Vale it is abundantly clear that the vessels in the original instance must have been of extraordinarily large size. As may be seen from the illustrations, the industry of the sub-aerial brickearth is the direct development from that discovered at the base of the Crayford series at the Northfleet–Swanscombe site, described and illustrated earlier in the paper. Covering the sub-aerial brickearth are from 5 to 6 ft. of stony loam containing 'rafts' of Coombe Rock (pl. xxi, 1 and 2, deposit E), the deposition of which was occasioned by a renewal of glacial conditions. Above, it has been demonstrated that this bed, up into which the sub-aerial brickearth passes, is to be correlated with the 'trail', both deposits finding their equivalent in the uppermost Boulder Clay of north-west Norfolk, north Lincolnshire, and east

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[1] Moir, J. Reid, *Journ. Roy. Anthrop. Inst.*, 1917, vol. xlvii, pp. 367–412; *Proc. Preh. Soc. East Anglia*, 1927, vol. v, pt. 2, pp. 232–52.

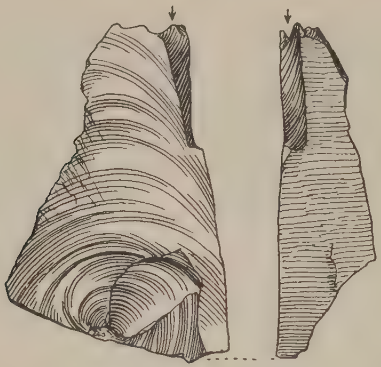

Fig. 34. Graver made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

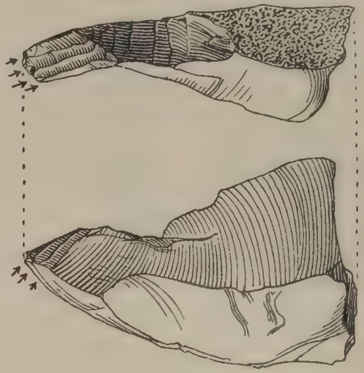

Fig. 35. Busked graver made from a flake; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

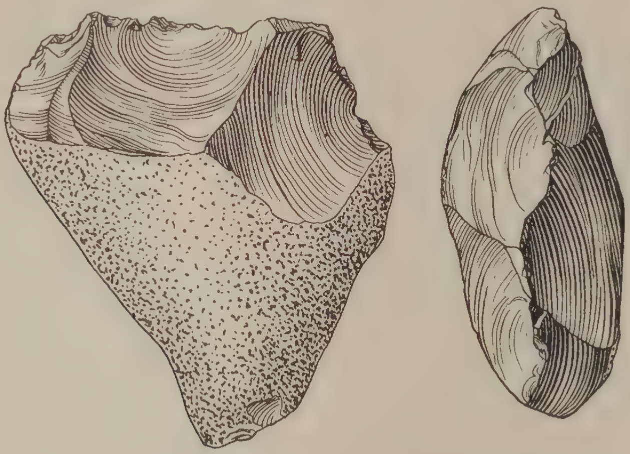

Fig. 36. Chopper; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

Yorkshire.[1] Apart from its included 'rafts' of Coombe Rock, the stony loam contains Chalk in the form of small pellets. As illustrated in pl. xxi, 2, 'rafts', together with their surrounding stony loam have ploughed through the underlying beds until the hard, resistant surface of the Coombe Rock was encountered. That this phenomenon cannot be explained by solution piping is proved by the surface of the Coombe Rock having remained intact (pl. xxi, 1). I excavated 'raft' no. 3 (pl. xxi, 1) and found that numerous artifacts had been picked up from the underlying occupation level (figs. 38–9). These derived specimens, in contrast to the 'floor' pieces, are lustrous, and, in the majority of instances, they show marked striation (fig. 39). Holocene surface soil to a

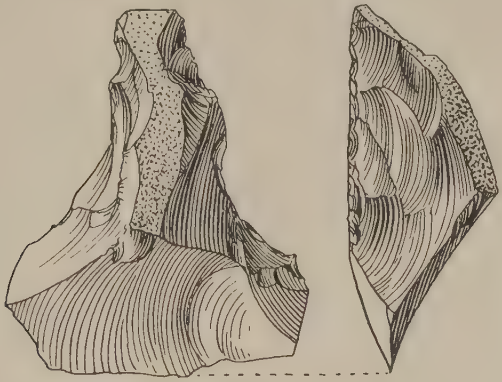

Fig. 37. Double fabricator made from a flake; unrolled and unpatinated. From sub-aerial brickearth. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

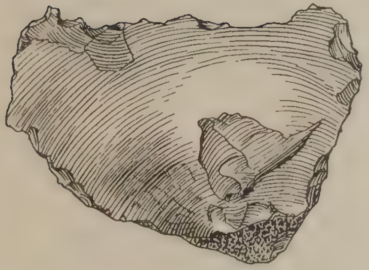

Fig. 38. Hollow-scraper made from a flake; unrolled and unpatinated; slightly lustrous surfaces. From 'raft' of Coombe Rock, no. 3. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

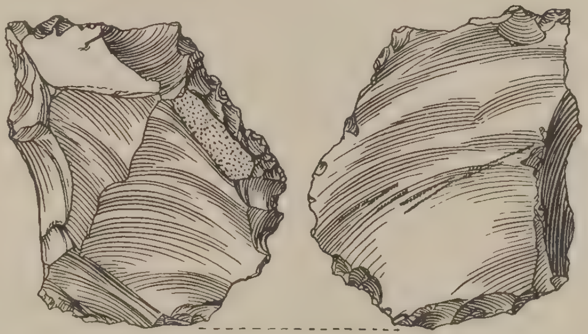

Fig. 39. Flake-implement showing two periods of work and, upon under surface, five glacial striae; unrolled and unpatinated; lustrous surfaces. From 'raft' of Coombe Rock, no. 3. Ingress Vale. Of the natural size. Upper Mousterian/Aurignacian.

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[1] Moir, J. Reid, *Antiq. Journ.*, 1930, vol. x, pt. 4, pp. 359–71; *Proc. Preh. Soc. East Anglia*, 1931, vol. vi, pt. 4, pp. 306–15. Burchell, J. P. T., *Proc. Preh. Soc. East Anglia*, 1930, vol. vi, pt. 3, pp. 232–3; *Antiq. Journ.*, 1930, vol. x, pt. 4, pp. 371–83.

depth of 2 ft. completes the section (pls. xx, 2, xxi, 1 and 2, deposit F). The Geological Survey map (Kent, Sheet IX, N.E., scale 6 in. to 1 m.) shows, on the Office Copy, the general section in the centre of the Bean-Greenhithe valley to be: 'Brickearth 2–4 ft., Gravel with big flints 0–6 ft., Chalk Rubble 6 ft.', and that in Ingress Vale as: '2–12 ft. Brickearth' overlying Chalk Rubble. It should be added that the whole of the series has been grouped under the comprehensive term 'Coombe Deposits', since the Survey regards the Coombe Rock and the 'trail' as of the same age.[1]

The relationship of the stony loam containing 'rafts' of Coombe Rock and the 'trail' to the Low or '25-foot' terrace has hitherto been a matter of speculation. Lately, however, I have succeeded in substantiating the theory that the Low terrace is the younger. East of the village of Aylesford, in Kent, the river Medway has laid down on its right bank an exceptionally well-developed example of the Low or '25-foot' terrace. When the comparatively high ground against which this terrace abuts is examined it will be observed that the stony loam, which here attains a thickness of 6 ft. or so, has been truncated by the deposits of the Low terrace. Now the latest bed in this terrace consists of a calcareous loam formed for the greater part of re-deposited Gault. The molluscan fauna which it contains is tabled hereunder:

Pupa muscorum, Linn., very common.
Pomatias elegans, Müll., very rare.
Punctum pygmaeum, Drap.
Cochlicopa lubrica, Müll.
Vallonia pulchella, Müll.
,, *costata*, Müll.
,, *excentrica*, Sterki.
Coecilioides acicula, Müll.
Carychium minimum, Müll.
Arion, sp.
Helicella nitidula, Drap.
,, *radiatula*, Ald.
Trochulus hispidus, Linn.
Euconulus fulvus, Müll.
Arianta arbustorum, Linn.
Cepaea nemoralis, Linn.
Limnaea truncatula, Müll., very rare.
Planorbis leucostoma, Müll., very rare.
Succinea pfeifferi, Rossm., very common.

A study of the mammals which flourished at the time the flood-loam of the Low or '25-foot' terrace at Aylesford was being laid down indicates a cold climate.[2]

Additional evidence of the relation of the Low terrace to the stony loam containing 'rafts' of Coombe Rock and/or the 'trail' is forthcoming on the Essex side of the Thames. For there, in a cutting exposed to the south of Belmont Castle, Grays, the gravels of this '25-foot' terrace may be seen overlying sandy contorted 'trail'. In the underlying loams, contemporary with the sub-aerial brickearths of the later phase, I found the spurred flake depicted in fig. 40. This specimen, which finds its parallel among the artifacts of Ingress Vale and is of Upper Palaeolithic age, shows slightly lustrous surfaces, but

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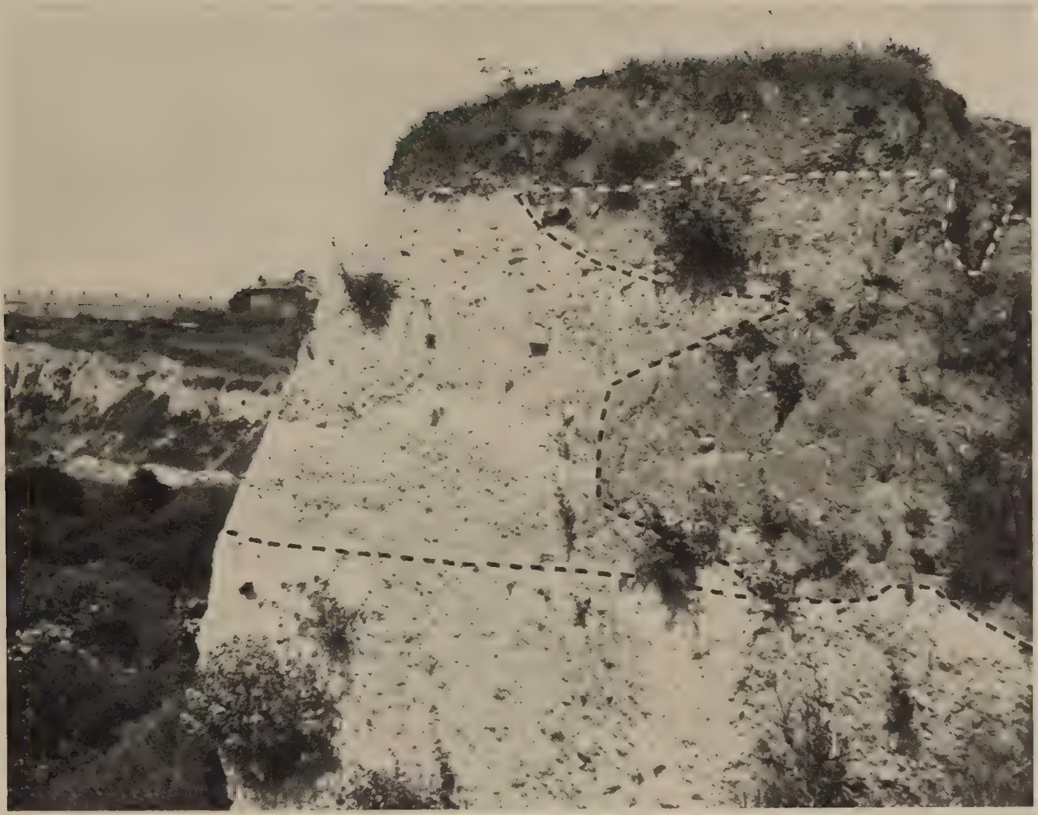
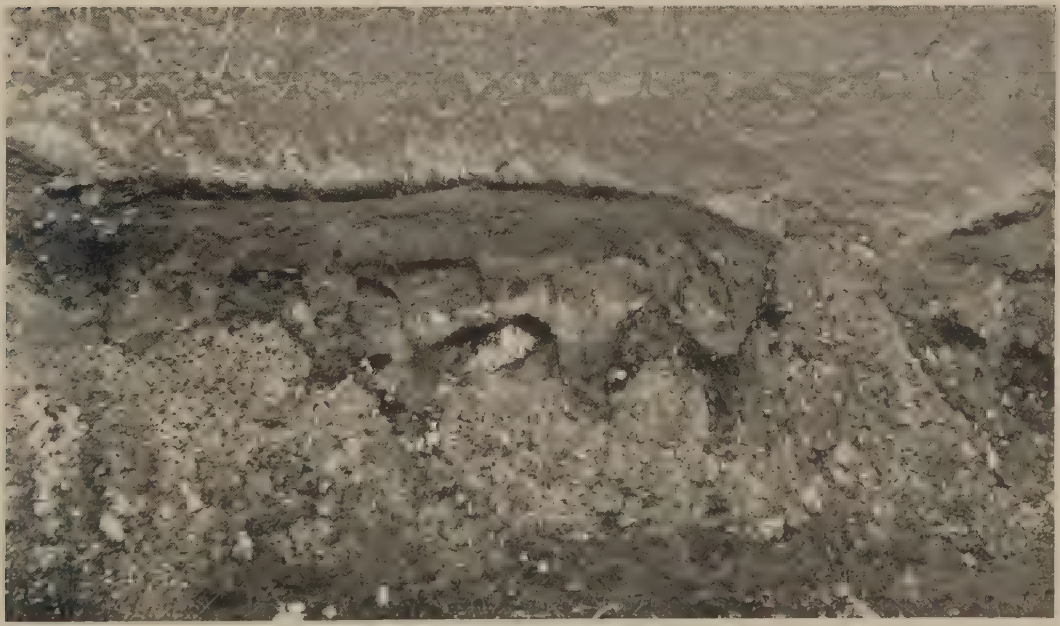
[1] *Mem. Geol. Survey*, 'London District', 1922, pp. 59–62.

[2] *Mem. Geol. Survey*, 'South London', 1921, p. 53.


Surface-soil, Deposit VIII
Brickearth of '50-foot' series (upper portion).
Deposit VI.
Chalk.
Coombe Rock, Deposit II, 6 feet thick.
Deposit I.

1. View showing upper part of brickearths of the '50-foot' series (deposit VI) banked against containing cliff of Coombe Rock (deposit II) and Chalk (deposit I). Surface level is approximately 75 ft. above O.D. The base of the '50-foot' series occurs 50 ft. lower, where it rests on Chalk. Northfleet–Swanscombe site. In the background may be seen Rickson's Farm (adjoining Barrack Pit) which stands upon the '100-foot' or Boyn Hill terrace



2. View showing gravel and brickearth of the '50-foot' series (deposits V and VI=C) resting upon Coombe Rock (deposit II=A) and overlain by the sub-aerial brickearth (deposit D). On the right-hand side of the picture the deposits of the '50-foot' series may be seen banked against a projecting spur of Coombe Rock. Ingress Vale—east of Knockhall House orchard

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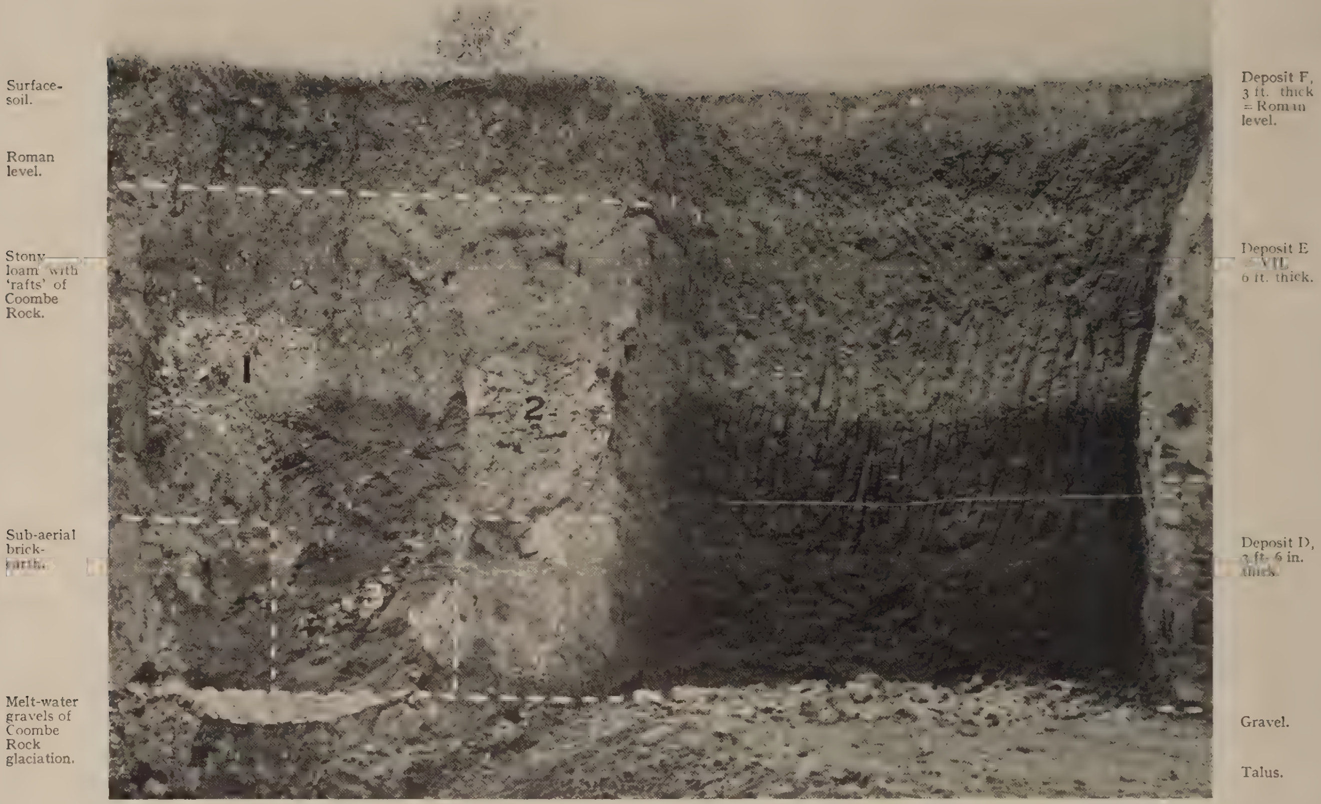
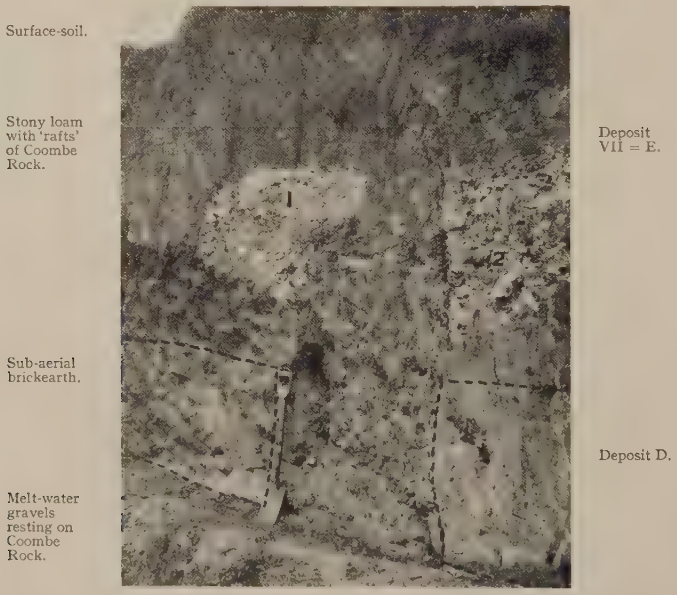

Surface-soil.
Roman level.
Stony loam with 'rafts' of Coombe Rock.
Sub-aerial brick-earth.
Melt-water gravels of Coombe Rock glaciation.
Deposit F, 3 ft. thick = Roman level.
Deposit E = VII, 6 ft. thick.
Deposit D, 3 ft. 6 in. thick.
Gravel.
Talus.
1
2
3

1. View of section exposed in Ingress Vale—east of Knockhall House orchard showing :—

F. Surface-soil with Roman level at 2 ft.
E. Stony loam containing 'rafts' of Coombe Rock, Nos. 1, 2, and 3 = deposit VII
D. Sub-aerial brickearth with 'floor' at base yielding Upper Palaeolithic implements and pottery fragments
B. Pocket of melt-water gravel of Coombe Rock glaciation

N.B.—Subsequent to the making of this picture 'raft' no. 3 was excavated. In the process it was found that the melt-water gravels, as elsewhere, occupied a hollow eroded in the surface of the Coombe Rock. In the above view a portion of a spur of the underlying Coombe Rock is seen stripped of the melt-water gravels


Surface-soil.
Stony loam with 'rafts' of Coombe Rock.
Sub-aerial brickearth.
Melt-water gravels resting on Coombe Rock.
Deposit VII = E.
Deposit D.
1
2

2. View showing 'rafts' of Coombe Rock, Nos. 1 and 2. 'Raft' No. 3 has been excavated subsequent to the making of Plate XXI, 1. Stony loam (deposit VII = E) may be seen cutting through the sub-aerial brickearth (deposit D). Ingress Vale—east of Knockhall House orchard

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otherwise its condition is unchanged. The loams rest upon homogeneous, light coloured, coarse sand which is probably the upper part of the brickearth which outcrops to the west.[1] The whole series of deposits lies banked against Coombe Rock, which latter caps the solid Chalk. Farther to the north, at a higher level, the deposits of the Boyn Hill or '100-foot' terrace occur lying on Thanet Sand.

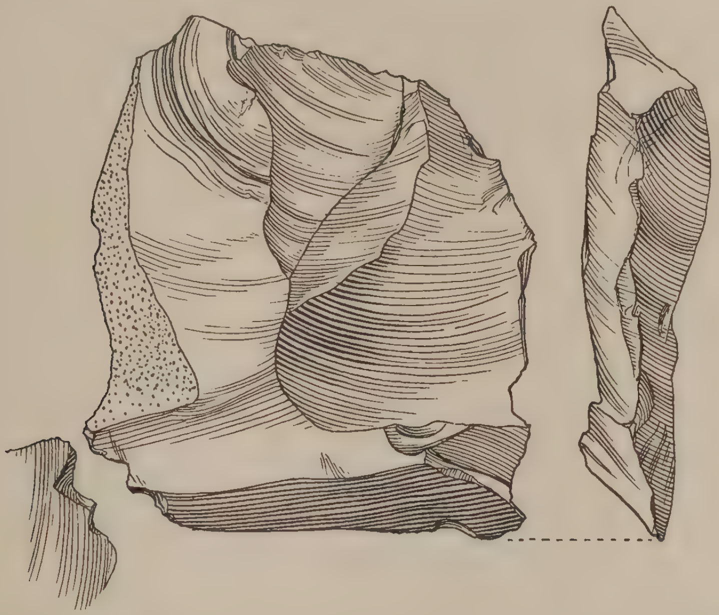

Fig. 40. Flake-implement showing spur at left-hand corner; unrolled and unpatinated; slightly lustrous surfaces. From loam banked against Coombe Rock and underlying 'trail'. About a quarter of a mile south of Belmont Castle, Grays, Essex. Of the natural size. Upper Mousterian/Aurignacian.

By way of conclusion the archaeological and geological evidence I have described in this paper is summarized in the chart on the next page.

My grateful appreciation is acknowledged herewith to: (*a*) the Trustees of the Percy Sladen Memorial Fund for their generous grant towards the cost of these researches; (*b*) Mr. A. C. Davis, managing director of the Associated Portland Cement Manufacturers, for extending me every facility to examine the sections situated on the company's properties; and (*c*) Mr. A. S. Kennard, for his invaluable help in identifying the molluscan remains.

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[1] *Mem. Geol. Survey*, 'Dartford', 1924, p. 107.

Geological formations.	*Land movements and climatic changes.*	*Human industries.*
Boyn Hill or '100-foot' terrace cut.	Elevation.	
Deposits on terrace.	Submergence. Warm.	Clactonian, Acheulian, and Early Mousterian (Levalloisian A).
Formation of terraces at progressively lower levels; cutting of lateral valleys.	Elevations succeeded by Submergences. Temperate.	Early Mousterian (Levalloisian B).
Excavation of Sunk Channel, no. 1.	Elevation succeeded by submergence. Boreal.	Early Mousterian (Combe Capelle and Levalloisian C).
Deposition of Coombe Rock.	Glacial phase.	Derived implements.
Accumulation of melt-water gravels both in valley and on plateau.	Arctic.	Derived implements.
Taplow or '50-foot' terrace of the Dartford and Grays areas cut.	Elevation.	
Deposits on terrace.	Submergence. Arctic, temperate, and boreal.	Middle Mousterian (Levalloisian D).
Formation of terraces at progressively lower levels; cutting of lateral valleys; deposition of sub-aerial loams.	Elevations succeeded by submergences. Boreal.	Upper Mousterian (Levalloisian E), Aurignacian, and proto-Solutrian.
Deposition of 'trail' and/or stony loam with 'rafts' of Coombe Rock.	Glacial phase.	Derived implements.
Low or '25-foot' terrace cut.	Elevation.	
Deposits on terrace.	Submergence. Arctic.	Solutrian.
Formation of terraces at progressively lower levels; cutting of lateral valleys.	Elevations succeeded by submergences. Boreal.	Magdalenian.
Excavation of Sunk Channel, no. 2.	Elevation. Boreal.	
Silting up of Sunk Channel, no. 2.	Submergence. Temperate.	Azilian, Epi-palaeolithic, Neolithic, Bronze, Iron, and Roman periods.

V.—*Kidwelly Castle, Carmarthenshire; including a Survey of the Polychrome Pottery found there and elsewhere in Britain.*

By CYRIL FOX, *Esq., Ph.D., F.S.A., and* C. A. RALEGH RADFORD, *Esq., F.S.A.*

With an Inventory of the Polychrome Pottery found in England.

By G. C. DUNNING, *Esq.*

Read 14th April 1932

INTRODUCTION

EXCAVATIONS designed to throw light on the evolution of this castle, and to obtain a series of stratified potsherds were carried out in August, 1930, by one of us,[1] and the results obtained were checked and extended by both of us in further excavations carried out in March, 1931. The work was necessarily limited in respect of the area examined, and in time (ten days in all), but it is hoped that the results are sufficiently suggestive for permanent record, and as indications of the lines on which further research at the castle might be undertaken. Before presenting the report of the excavations we should like to offer our thanks for the assistance we have received. To the President, owing to whose initiative the work was undertaken, we owe thanks both for facilities granted during the excavations, and for advice in the preparation of the report. The plans and photographs of Kidwelly are the work of the architectural and photographic staff of the Office of Works, to whom we are also indebted for other assistance. Prof. J. E. Lloyd has kindly supplied us with certain details about the history of the site. Mr. G. C. Dunning has contributed the valuable inventory of the English polychrome jugs, and has allowed us to use other information which is incorporated in our report. Mr. O'Neil was present during the later excavations, and assisted in the recording of the material during their progress.

HISTORY OF KIDWELLY

Cydweli was the name of a commote, which included a part of the coastlands lying between the Tywi and the Llwchwr. After the death of Hywel ap Gronw in 1106 Henry I granted this district to his minister, Roger, bishop of Salisbury, who erected a castle at the spot where the Gwendraeth Fach falls into the sea.[1] As the hall of the castle is mentioned in a charter datable to 1115 or earlier, the building must have been completed before that year.[2] The account of the battle of Maes Gwenllian (1136) speaks of Maurice de Londres, then lord of Cydweli, and Godfrey, Constable of the Bishop, as leaders of the Norman host.[3] This is the first appearance of Maurice de Londres in this part of Wales. He belonged to a Norman family and already held the barony of Ogmore in Glamorgan. The mention of Godfrey suggests that Bishop Roger, while parting with the commote, retained possession of the castle, which probably passed into the hands of Maurice de Londres only after his death in 1137.

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[1] A preliminary note on this is in *Antiq. Journ.* xi, p. 66.

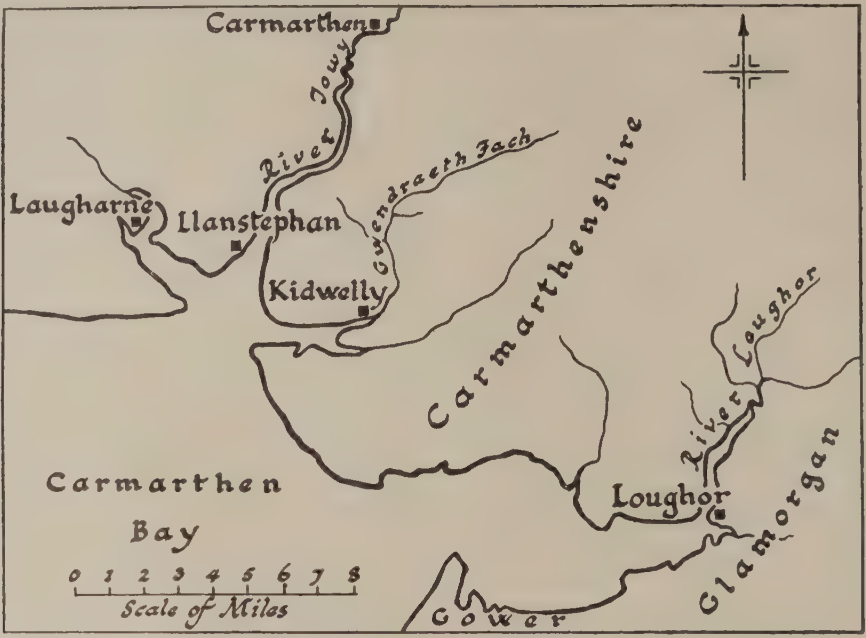

Fig. 1. Map of the Carmarthenshire coast showing sites of Norman castles.

The statement that the Lord Rhys built the castle of Kidwelly in 1190[4] suggests that the Welsh were, for a time, in possession of the settlement, but the castle was recovered before 1201, when his son Maredudd was slain by the Norman garrison.[5]

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[1] Lloyd, *History of Wales*, ii, 429. Cydweli, the Welsh form, is in this paper retained for the commote, the English spelling, Kidwelly, being used when only the castle or the Norman settlement is meant.

[2] *Monasticon Anglicanum*, iv, 65: 'Haec donatio facta . . . fuit in domo castelli de Kadweli.' Among the witnesses is 'Edmundus qui tunc castellum de Cadweli custodiebat'.

[3] Giraldus Cambrensis, *Itinerarium Cambrense*, vi, 79 (Rolls Series): 'Kedwelly . . . a Mauricio Londoniensi, loci illius tunc domino et viro egregio Gaufrido praesulis Constabulario.'

[4] *Brut y Tywysogion*, 236 (Rolls Series).

[5] *Annales Cambriae*, 62 (Rolls Series), 1101: 'Maredut filius Resi . . . a Francis de Kedweli . occisus est.'

In 1215 the Welsh again conquered the commote and burnt the castle.[1] These were assigned to Rhys Grug, who remained in possession till 1220 when Llywelyn Fawr forced him to restore these conquests.[2] During these troubles the male line of the Londres had become extinct. The heiress Hawise married Walter de Braose in 1223. After his death, apparently during the campaign of 1233-4, Hawise married Patrick de Cadurcis[3] (1244).

In 1231 Llywelyn Fawr, who had previously supported the royal authority, turned against Henry III. During the campaign he took the castle of Kidwelly and threw it to the ground.[4] The Welsh conquests were extensive, and ten years later Maredudd ap Rhys was still holding the commote.[5] Patrick de Cadurcis and his wife paid a fine of 100 marks for the commotes of Cydweli and Carnwallion in December, 1244,[6] and restored the defences of the castle which was able to resist the Welsh attacks of 1257–8.[7] Patrick de Cadurcis died in September, 1259, and was succeeded by his son Payn, a minor, the wardship being granted to the widow.[8]

Hawise died in 1274,[9] and Payn, who, with his younger brother Patrick, had taken the Cross four years earlier,[10] became lord of Cydweli. On his death in 1279,[11] the honour passed to his brother who only outlived him by three years,[12] leaving an infant daughter Matilda. In 1291 Edmund, earl of Lancaster, obtained a grant of the marriage of the young heiress for the use of his younger son, Henry,[13] the union being consummated in 1298.

Two years after the execution and forfeiture of his brother Thomas of Lancaster in 1322 the honour was restored to Henry.

In 1334 Cydweli, with his other Welsh lands, was granted to the earl's eldest son, Henry. He succeeded his father in 1345, and held the lordship for twenty-seven years. His death without male heirs caused a partition of the Lancastrian possessions. Cydweli fell to the elder daughter Matilda, but on her death in 1362 it reverted to her sister Blanche, the wife of John of Gaunt.

The connexion with the Duchy of Lancaster brought Cydweli into the hands of the Crown, which retained the lordship and the castle until the end of the middle ages. It was later alienated and eventually passed to Earl Cawdor, by whom it was placed under the guardianship of H.M. Commissioners of Works in 1927.

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[1] *Brut y Tywysogion*, 284.

[2] *Royal Letters of Henry III*, 1, 176 (Rolls Series); cf. Lloyd, *op. cit.*, 658, note 17.

[3] Lloyd, *op. cit.*, ii, 712, note 110.

[4] *Brut y Tywysogion*, 318.

[5] Cal. Pat. Rolls, 1232-47, 289.

[6] *Excerpta e Rotulis Finium, Henry III*, 1, 410 (Edition 1835).

[7] *Annales Cambriae*, 92 and 96 (Rolls Series): 'Postea apud Kedweli Walenses castrametati sunt, domos et villas praeter castrum Kedweli combusserunt.'

[8] I.P.M., 42, Henry III, no. 417. Cal. Pat. Rolls, 1258-66, 32.

[9] I.P.M., 2, Edward I, no. 51.

[10] Cal. Pat. Rolls, 1266–72, 440.

[11] I.P.M., 7, Edward I, no. 310.

[12] Ibid., 11, Edward I, no. 477.

[13] Cal. Pat. Rolls, 1281–92, 464.

Description of Kidwelly

Medieval Kidwelly was a castle and borough lying on both banks of the Gwendraeth Fach at the highest point reached by the tide. The settlement lay on the great road leading to Carmarthen and the West, but the frequent medieval references to the port suggest that the site, like those of many Norman castles in the district, was chosen so that communications by sea could be maintained in the event of a hostile rising (fig. 1).

On the lower east bank of the river is the fourteenth-century priory church. The priory was founded by Roger, bishop of Salisbury before 1115, and became a cell of the abbey of Sherborne. To the south of the church is a late medieval house of two stories, the last surviving domestic building of that date.[1] The castle lies on the opposite bank of the river which is crossed by a bridge with two pointed arches of fifteenth-century date. The widening of the roadway has necessitated the demolition of the original parapets, but below this level the whole of the ancient structure is preserved.

Immediately to the north of the bridge an outcrop of shale forms a well-marked knoll, the eastern side of which falls sharply to the river. The castle crowns the highest point. On the landward side it is protected by a semicircular bank with a deep outer ditch. On the bank is a curtain wall with towers at intervals, the main gatehouse of the castle on the south, and a postern on the north.

Within the somewhat limited semicircular area enclosed by these defences is the inner ward—a symmetrical rectangular construction with four drum towers linked by curtain walls. Extensive earthworks enclose the baileys which environ the castle proper. A fourteenth-century gatehouse commands the entrance, and traces of the wall, which enclosed the settlement in the southern outwork, can still be seen; on the level ground between the southern bailey and the river lay the castle mill. The medieval weir and leat can still be traced at the foot of the scarp, and the earlier part of the mill house probably incorporates part of the original structure.

Turning to the area covered by the castle proper, we may describe Kidwelly as a singularly complete and beautiful example of military architecture of the late thirteenth and early fourteenthcentury (pl. XXIII, 2). A striking effect

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[1] Demolished in 1932.

[2] Grants of murage are recorded in 1280-81 (Cal. Pat. Rolls 1272-81, 418 and 427). Leland in the sixteenth century speaks of Kidwelly as a walled town (*Itinerary in Wales*, p. 59. Edition, Toulmin Smith).

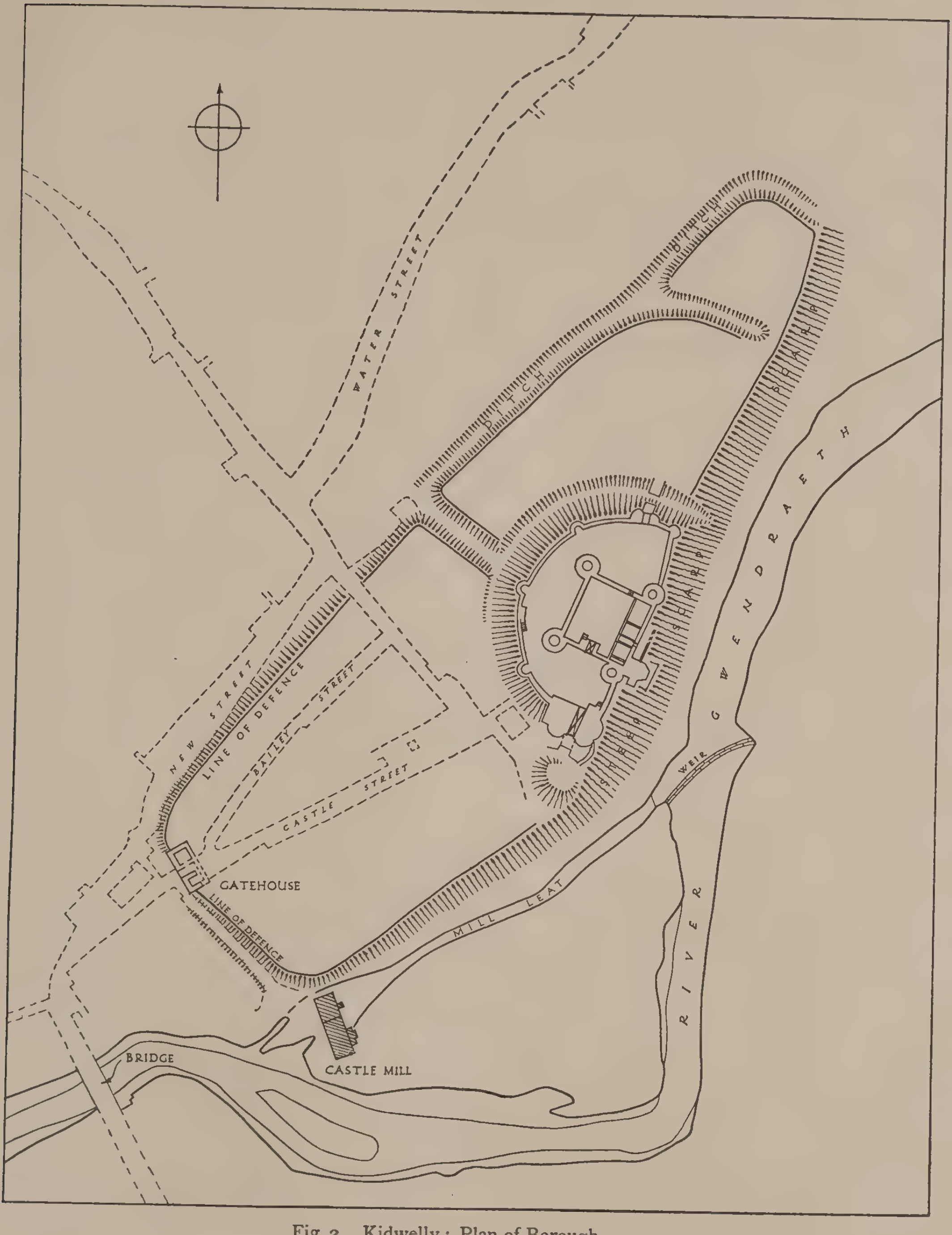

Fig. 2. Kidwelly: Plan of Borough.

is obtained by the use of several different stones. The earliest masonry is largely built of rough-hewn blocks from the local Pennant beds. In the towers colour is provided by the white Sutton stone of the doors and windows, and the dark native shale of the narrow levelling courses. The more careful masonry of the chapel relies on a contrast between the darker Pennant and the white Sutton stone. In the fourteenth-century work the dominant note is struck by the large roughly dressed glacial boulders of limestone and of various igneous rocks.[1] The contrast between these and the narrow levelling courses gives the gatehouse and the outer ward their characteristic appearance, which is thrown into relief by the Tudor additions and repairs, relying exclusively on the darker material from the Pennant beds. The details of the fourteenth-century and later work are carried out in a soft sandstone which has weathered badly.

A notable feature is the completeness of the preservation of the turrets and wall walks. We are even able to observe that the turrets which provided covered access to the roofs of the towers, themselves formed the floors of tiny look-out places. The lower breastwork of this eyrie survives over one tower.

The successive constructional periods in the history of the castle will now be described (see pl. XXII).

Period I (*c.* 1275). The earliest remaining masonry on the site is that of the towers and the curtain enclosing the inner ward. This occupies a rectangular area of 70 ft. by 70 ft. A circular tower with an internal diameter of 15 ft. marks each corner of the enclosure. These towers, which could be entered either from the interior of the courtyard or from the wall walk, were originally four stories high. The base in each case formed a mere cellar partly below ground level, and lighted by tiny slits. In the two western towers access was through a trapdoor in the floor of the room above, but the lower level of the eastern side of the courtyard allowed an independent doorway to the basements of these towers. The upper floors, with their wide recesses and larger windows, were intended for residence. That on the south-east is the most elaborate. Each stage of the south-western tower is covered with a flat, low, saucer-shaped vault, but in the other three the upper floors and the roof were carried on wooden beams. The main entrance to this ward lies in the centre of the southern side, with a postern on the north. Both had wooden doors, and possess portcullis grooves, but the simplicity of their construction, mere openings in the wall, shows that they were not designed for defence. The contemporary buildings within the courtyard have disappeared, and it seems probable that those belonging to the earlier castle remained in use.

[1] The boulders were almost certainly of local origin. Similar material is still obtained at Mynydd y Grug only two miles away from the castle.

Most of the dressed stonework of this period has disappeared, but the details of the fireplaces in the south-east tower are of thirteenth-century character. The plan of the inner ward calls for an outer defensive zone, and may be compared with Caerphilly, Harlech, and other castles of the later thirteenth century. The omission of the elaborate gatehouse, which usually accompanies this type, was, as the excavations have shown, imposed on the builders by the existence of the earlier defences. The construction of the inner ward may therefore be ascribed to Payn de Cadurcis, probably after his return from the Seventh Crusade.

Period II (*c.* 1280–1300). The older domestic buildings were soon replaced by a new hall and kitchen, occupying the eastern side of the courtyard. That these additions and the erection of a chapel projecting down the eastern slope did not form part of the original design is proved both by the different style of the masonry, and by the unusual lay-out, with the private rooms in the tower behind the screens of the hall instead of beyond the solar.

The whole eastern side of the courtyard is occupied by a two-storied building, 30 ft. wide. The ground floor is low and badly lighted, with the main chambers above. The north end was the solar, of which the fireplace and one lancet window in the eastern wall have been preserved. A second window can be traced beyond the fireplace, while the remains of a third and those of the doorway leading to the hall can be seen in the opposite wall. The greater part of the hall, which occupied the rest of this building, has been destroyed. The screens were at the south end where the substructure of the stairs leading to the main entrance, and the jamb of the doorway still remain. Beyond this the large chimney and the floor level of the kitchen can be traced in the south curtain. Behind the screens the room in the south-east tower was probably used as the buttery, and it would seem reasonable to regard the blocking of the archway between the passage leading to this and the stairs as a contemporary alteration. This would have preserved the privacy of the upper rooms of this tower, which continued to be the best appointed chambers in the castle.

The chapel (pl. XXIII, 1) lay to the east of the hall. It was entered by a doorway at the end of the passage formed by the screens. The masonry is carried up to form a clerestory, with an unbroken series of widely splayed windows. On the south side of the altar is a double piscina. Below the chapel are two further floors. They are reached by a stair descending from the passage behind the screens of the hall. The main room on the upper floor is provided with a fireplace. To the south is a small turret, probably used as a bedchamber, and a garderobe is contrived in the thickness of the wall. This turret is carried up to form a vaulted sacristy on the level of the chapel, above which it is covered by a cruciform gabled roof.

The mouldings of the doors and windows of this period are all of thirteenth-century character, and none of the simple stops used in the chapel need be later than 1300. The small trefoiled lancet windows, with no trace of glass grooves, are early features. The use of Sutton stone from Ogmore suggests a period when the castle was still held by the de Cadurcis, as in the later Lancastrian work this is replaced by a more easily worked sandstone. But it is unlikely that these extensive additions were made during the minority of Matilda de Cadurcis (1282–98), and a date before the death of her father Patrick in 1283 seems rather earlier than the purely architectural evidence would warrant. The early years of Henry of Lancaster's tenure (after 1298) are therefore the most probable date of this work.

Period III (early 14th century). The design of the inner ward required an outer line of defence, and the next stage in the development of the castle was the replacement with masonry of the earlier defences, which the excavations have revealed.[1] The main gatehouse, the northern postern, and the curtain with its semicircular towers, form part of a single plan, though there is some evidence that the gatehouses were built before the curtain.

The main entrance is through the southern gatehouse (pl. XXIV). The bridge crossing the moat has been replaced by a causeway, but the line of the outer abutment can still be traced. The gatehouse is a fine example of the elaborate type evolved during the last thirty years of the thirteenth century. The long entrance passage was closed at each end by doors and a portcullis, which in case of need would enable the building to serve as an independent fortress. The interior is arranged as a separate residence. On the first floor the hall occupied the inner side with the kitchen to the east. These rooms were reached by an internal stairway leading to the south end of the screens. The second floor included a large solar immediately above the hall, while the front of the towers and the western side of the building provided several smaller rooms, which still retain the original vaults.

The northern gatehouse is much ruined. It was a simple structure of two stories, approached by a bridge across the moat. The convex outer curtain connecting the two gatehouses is flanked by three semicircular towers. The central one has been destroyed, but like that to the north, it was probably a simple and purely defensive structure. The southern tower, which is nearest to the gatehouse, is more elaborate. All these towers have three floors, the highest on the level of the wall walk. Above this, stairs led to the roof. A similar tower appears to have existed at the north-east angle of the enclosure, but this and the greater part of the curtain between the northern gatehouse and the inner ward fell during the middle ages. Contemporary with the

[1] See p. 106.

curtain is a low outer defence, originally linking the chapel and the north-east tower. This adaptation of the concentric plan to a precipitous slope may be compared with the mantlet at Denbigh. In the junction between the north-east tower and the east curtain, the passage and the doorway leading to this outer rampart can still be traced. Originally this passage led from the tower to the eastern wall walk, but the alterations carried out during the erection of the hall blocked the exit.

The replacement of the earlier stockade by a masonry curtain increased the height of the outer defences, which were no longer commanded by the towers of the inner ward. These were therefore heightened by an extra story of about 8 ft. The original battlements can still be traced in the walls.

The details of the gatehouse are all of fourteenth-century character, and there is little doubt that the fortification of the outer ward was carried out by Henry of Lancaster during the first twenty years of that century.

Period IV (14th century). With the work last described the military development of the castle was completed. The fourteenth century saw several small alterations, of which the most important was the closing of the gorges of the towers flanking the curtain. With this work may perhaps be associated the erection of the gatehouse at the entrance to the southern outwork. Historically, a date prior to 1362, when the castle came into the hands of John of Gaunt, is probable.

Period V (late 14th or 15th century). During this period the castle was not extensively occupied. It was still defensible and was garrisoned during the revolt of Owain Glyndwr,[1] but the extensive patching of the gatehouse carried out in Tudor times proves that it was much decayed before 1500. The only building carried out during this period is the curtain crowning the slope between the inner ward and the northern gatehouse. The greater part of the original wall, including the tower at the north-east angle, must have fallen at this time. It was replaced by a simple curtain, 3 ft. thick, completing the enclosure without any attempt to replace the missing tower. Its relation to the building within the eastern ward proves that this reconstruction is earlier than *c.* 1500, but the rougher masonry and the absence of the characteristic corbel course of the outer curtain dissociate it from the earlier fourteenth-century work.

Period VI (*c.* 1500). In the early Tudor period the castle of Kidwelly was once more adapted for residence. The hall and the neighbouring rooms were either too ruinous or too inconvenient for use, and only small alterations can be traced in this part of the castle. Existing windows in the two eastern towers were altered, the earlier slits being replaced by larger rectangular

[1] Cal. Pat. Rolls, 1401–5, 319 and 502.

openings. The southern gatehouse shows more extensive rebuilding. An external stair, which may be compared with the contemporary example at Harlech, was added to form a new entrance to the hall. Internal alterations blocked the earlier stairway from the ground floor and this was replaced by an added turret at the north-west angle of the building. Extensive repairs to the external walls and the insertion of larger windows in the hall show that the gatehouse formed an essential part of the new residence.

A new hall was erected on the west side of the outer ward. This was a simple gabled building lying parallel to the curtain of the inner ward, beyond which lay the kitchen, reached by an opening driven through the thirteenth-century wall. Another hall standing on the north side of the outer ward, and smaller lean-to buildings lining the face of the outer curtain, provided accommodation for the more extensive Tudor household. This renewed activity must be connected with Henry VII's arrival in South Wales.[1]

Period VII (16th century). The work carried out at the end of the fifteenth century was the last attempt to adapt Kidwelly to the changed conditions of life. Minor alterations to the new western hall show that it remained in use for a certain number of years, though this occupation is unlikely to have lasted beyond the sixteenth century.

In the subsequent centuries the castle was put to base uses and gradually decayed. Preservation was begun in the nineteenth century and considerable work was undertaken by the owner, Earl Cawdor. Since 1927 the securing of the surviving remains has been systematically carried out by the Commissioners of H.M. Works.

Problems of Structural History at Kidwelly

Though the general sequence of the castle's history which can be worked out by a study of the stone structure alone is fairly clear and consistent, a difficulty is apparent when the plan (pl. XXII) is examined.

No visible remains could be certainly ascribed to the Norman castle which is known to have existed at or near this site. It had therefore been suggested that the present inner ward was the original castle: that it was probably moated, the moat having been filled in when the present outer curtain wall, ditch, and bank were built. The conclusion seemed to be confirmed when a trial hole showed several feet of made ground in the space between the inner and outer wards. The difficulty we have referred to lies in the fact that the outer curtain is closely squeezed up against the inner ward, and it would seem that, apart from circumstances hitherto unrecognized or unknown which condi-

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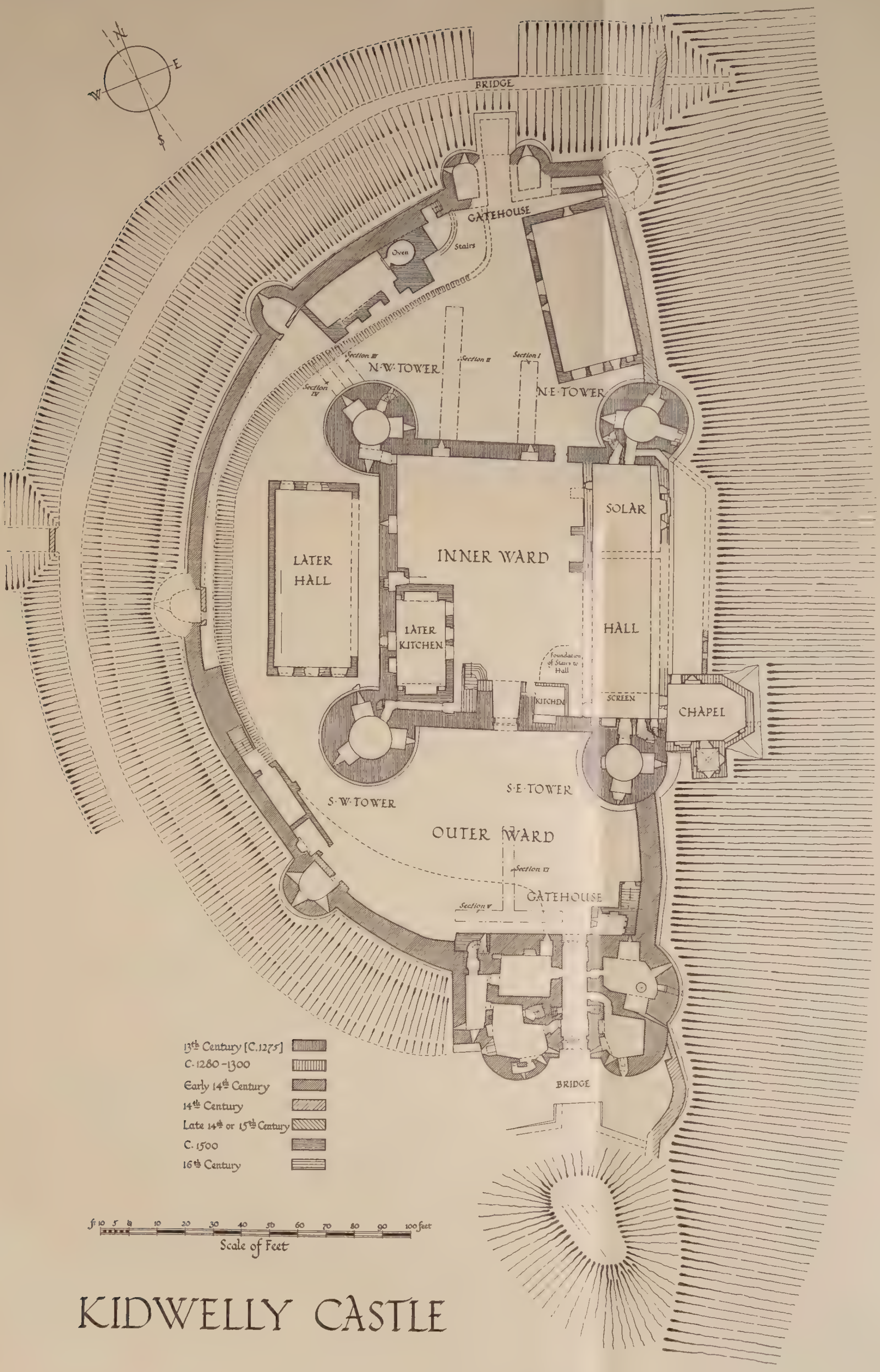
[1] Leland, *Itinerary in Wales*, p. 59. Edition, Toulmin Smith.



KIDWELLY CASTLE

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tioned the lay-out, the curtain would have taken a larger curve, leaving greater space between it and the inner ward.

The primary problem studied in investigations undertaken on behalf of the Society, then, was the relation between the inner ward, the main bank and ditch, and the curtain wall thereon. In particular, the excavations were intended to test the theory that the inner ward represented the earliest castle, and had a deep ditch which was filled up when the encircling defences were built.

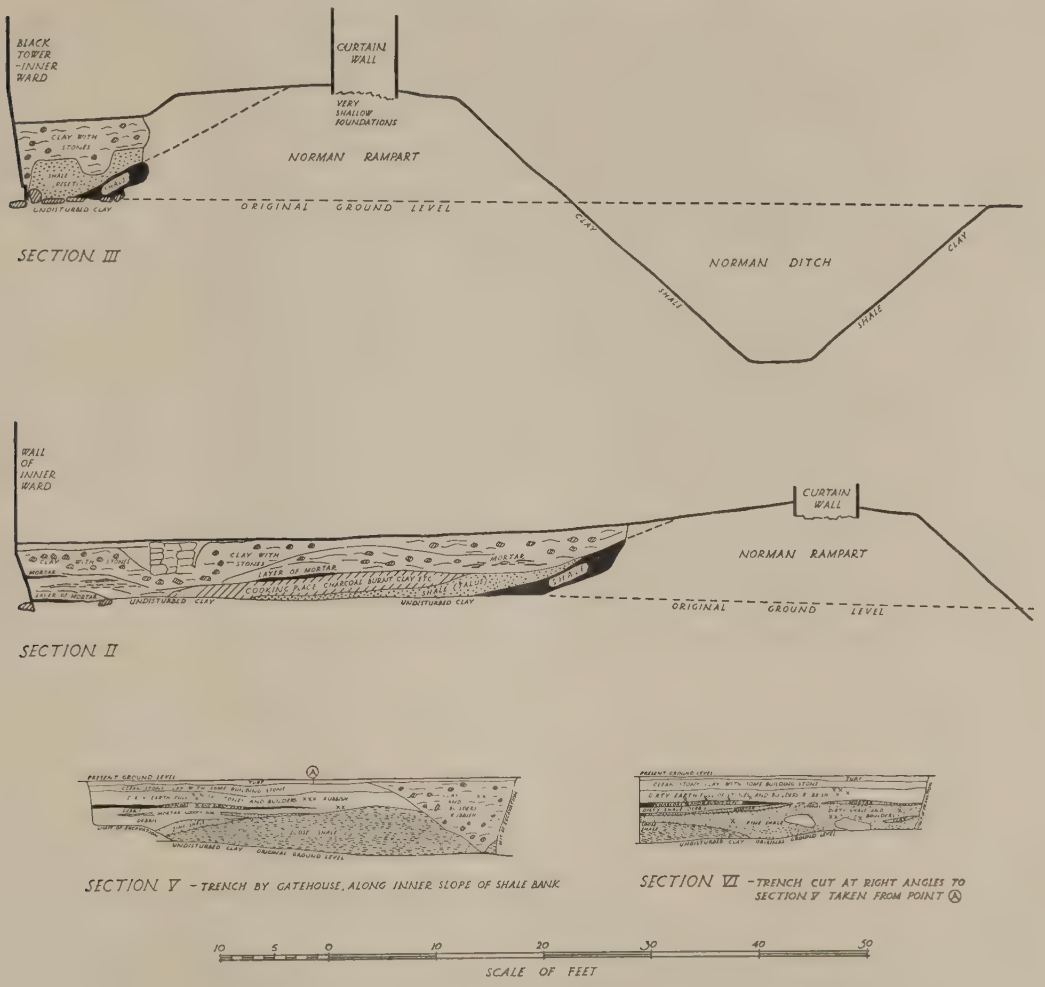


Fig. 3. Sections.

THE BEARING OF THE EXCAVATIONS ON THE STRUCTURAL HISTORY OF THE CASTLE

Three trenches (i, ii, iii) were cut in the open space available for excavation between the inner ward and the north gate; the position of these is shown on pl. XXII.

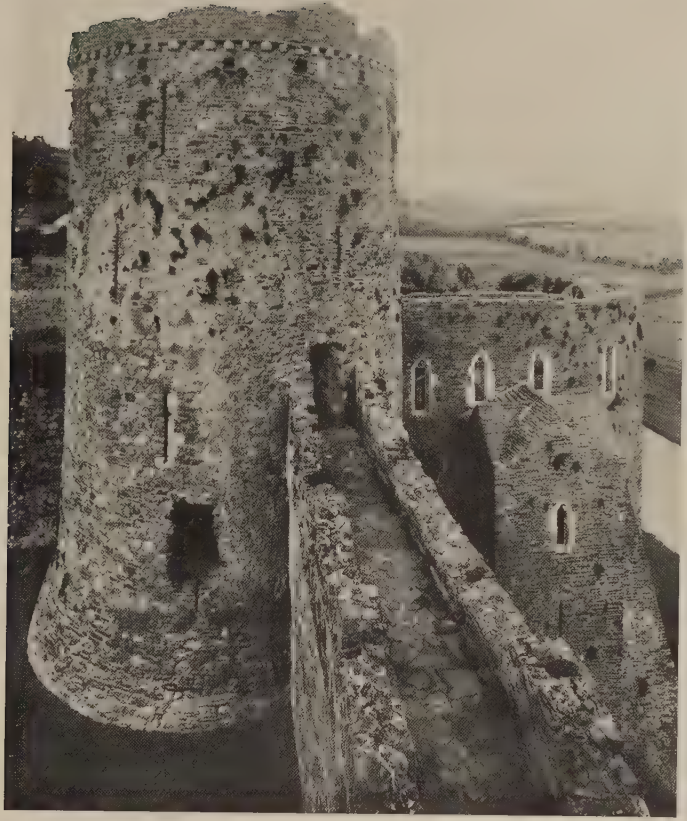
The first trench was cut close to the postern doorway of the inner ward. 30 ft. was the limit of length possible at this point. Clay was found at a depth of 3 ft. 6 in. to 3 ft. 9 in., and it extended under the wall of the ward. A deep trial hole showed that this was the original surface soil, and was undisturbed. The wall had no foundations, being built on a layer of boulders laid on the clay.

It was quite clear that there was no ditch near the postern; the next trench (section iii) was dug at the base of the north-west (black) tower, where a deep deposit of made ground had suggested the existence of a ditch. 12 ft. was the limit of length possible. Undisturbed clay, with boulders and stones, the original surface soil, was found at a depth of 7 ft. 10 in. The tower, like the adjacent wall, was built without foundations on the clay. The deposits shown in section were of some complexity, but the following appear to be the essential elements of the stratification (see fig. 3, section iii):

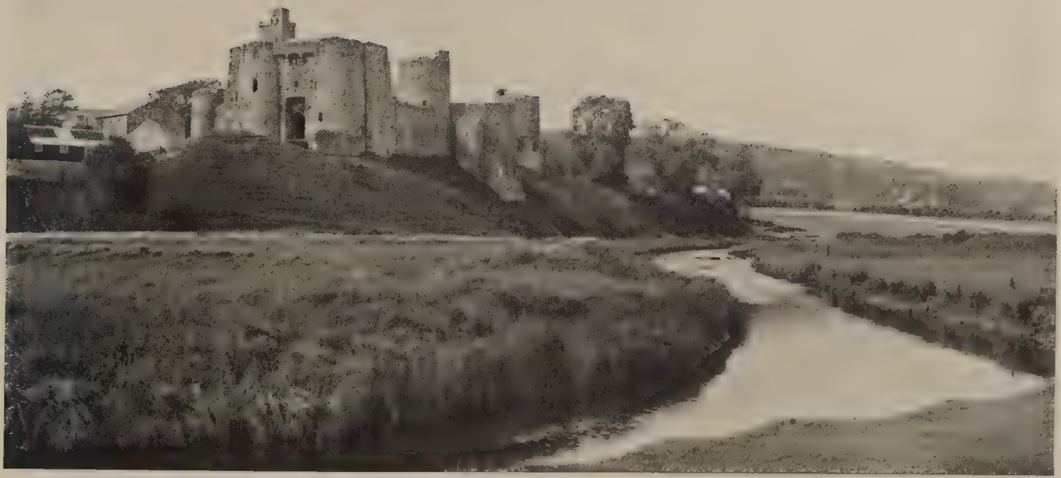
> The tail of a bank of (loose) shale is the first deposit. A talus of fine shale is either part of that deposit or an addition to it. This bank was afterwards trenched for some reason. The shale deposits were cut away by the tower builders, who built the lower courses from inside—overhand. After the tower was finished, the ground was raised to a higher level with clay, mortar, stone, etc.: builder's rubbish.

Two interesting points arise. One is that the shale bank—whatever it is—is older than the inner ward. The other is that the apparently deep foundations of the tower, as compared with the adjacent wall, are due to differences in original ground level. All that was now necessary, or possible, in the limited area available for excavation, was to demonstrate the original surface—the clay—at a halfway point, where it ought to be 5-6 ft. below the present ground level, and to fix the position at this point of the bank. This was done in section ii. The wall was, as before, built on the undisturbed clay: this was found 5 ft. 6 in. down. The base of the shale bank was found 41-2 ft. from the wall. It was diagonal to the trench (see fig. 3).

The position of these three cuts, with the fall of the ground to the west, is diagrammatically shown on the sketch, fig. 4. If one looks at the knoll as a whole, it is evident that the made-ground will be deepest somewhere between the two western towers, pl. XXII.



1. Kidwelly castle: SE. tower and chapel



2. Kidwelly castle: general view

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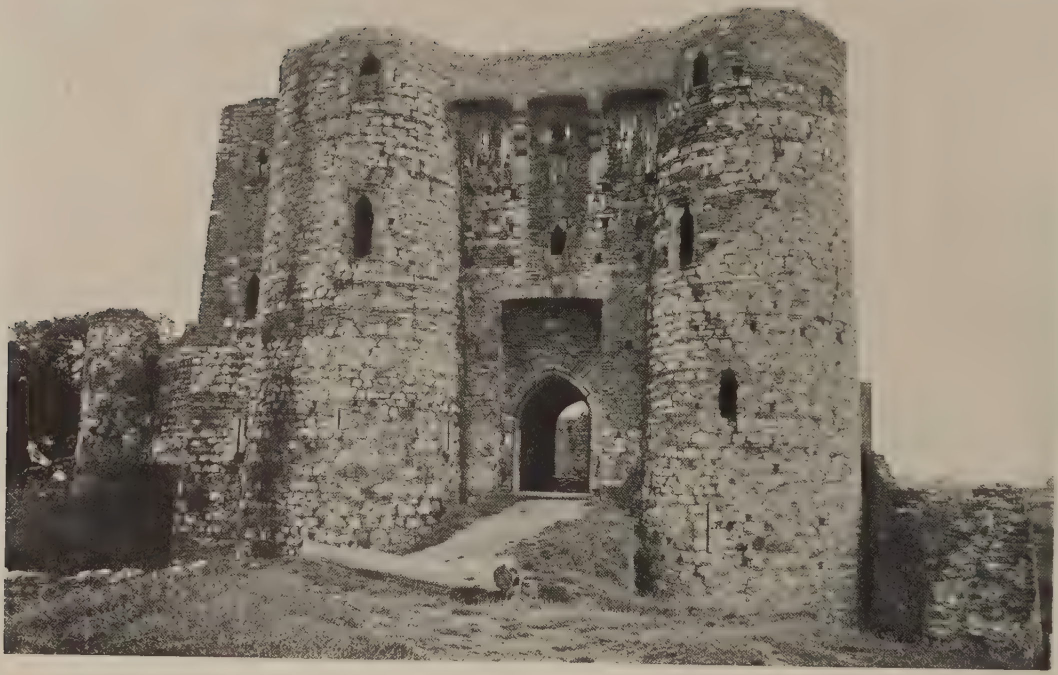
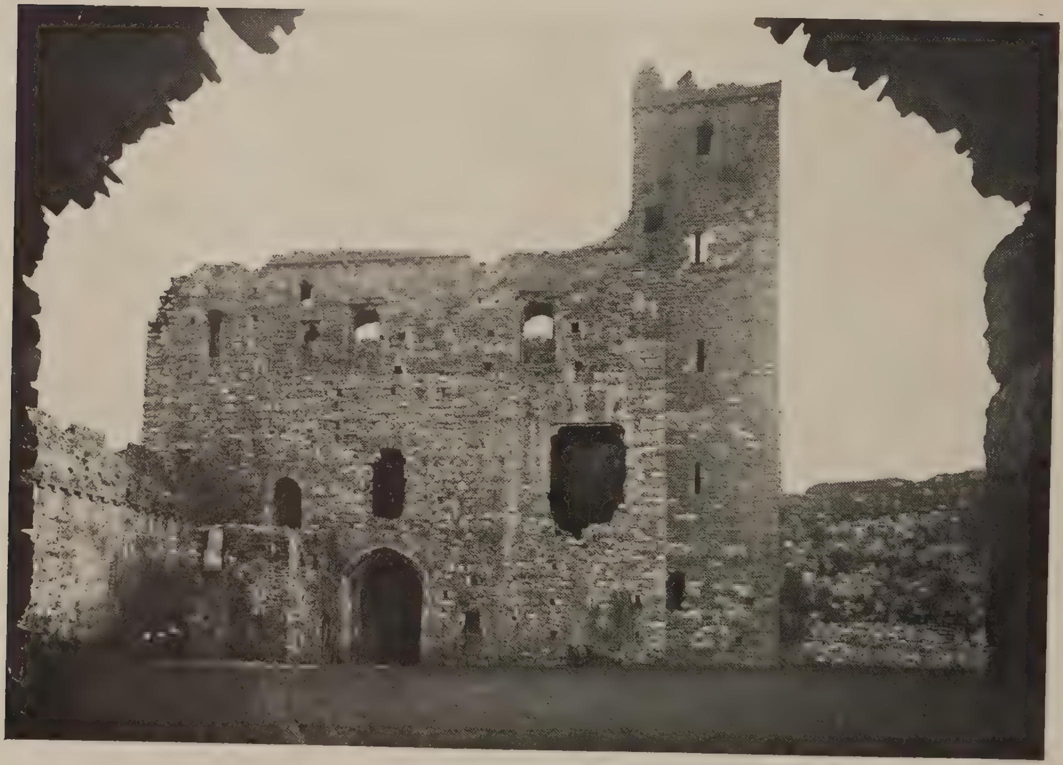


1. Kidwelly castle: gatehouse, south front



2. Kidwelly castle: gatehouse, north front

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It is thus proved that no ditch was constructed around the north side of the inner ward. A T-shaped trench (nos. v and vi) cut at the other side of the ward—in the open space between it and the gatehouse—failed to reveal, at its north end, the lip of the ditch; there was thus none on the south side of the ward either. Hereabouts the natural ground level—the clay—was from 5 to 6 ft. below the present ground level, the fall of the ground being to the south-west. These cuts, shown in plan on pl. XXII and in section in fig. 3, also revealed the shale bank, in the position anticipated, close to the gatehouse.

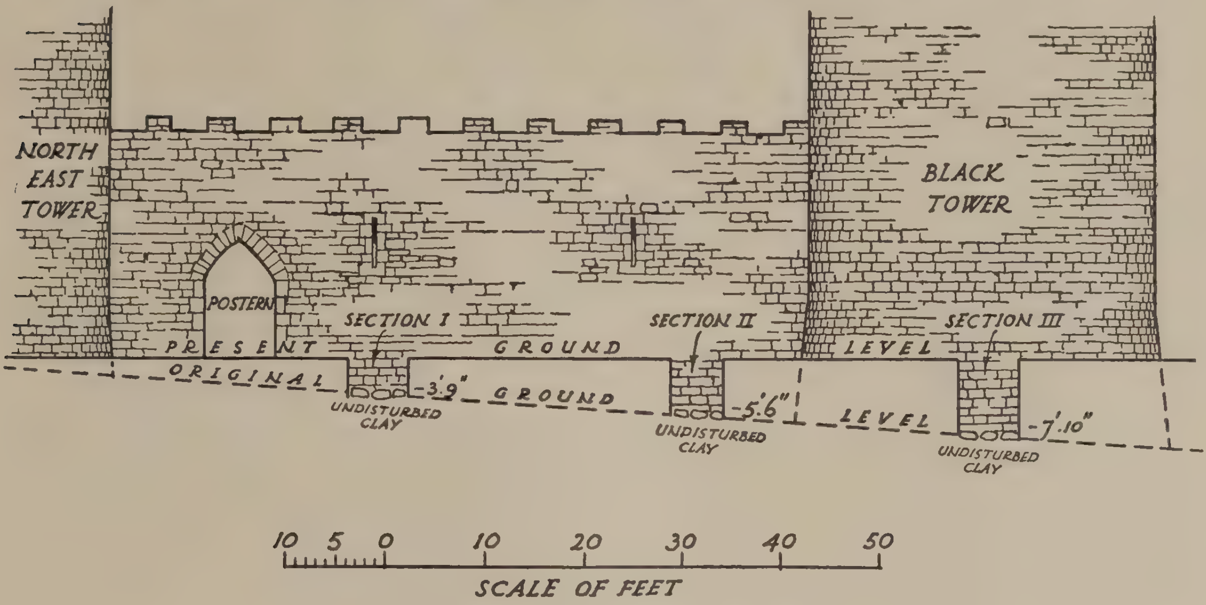

Fig. 4. Diagram of north side of Outer Ward.

The shale bank is, of course, the rampart, which with its ditch and the curtain wall now forms the chief defence of the castle. Now this rampart has been shown in section iii to be considerably older than the north-west tower, since a deposit laid on it was cut through when this tower was constructed, and was then firmly consolidated.[1] Being then of considerable age in *c.* 1275, it can be none other than Norman.

This result enables us to clear up the structural history of the castle. The chief elements of the sequence are illustrated in fig. 3. The curtain wall perpetuates the original main defensive zone of the castle, the remains of the earthen rampart thereunder and the existing ditch being original Norman work of *c.* 1110. On the former was doubtless a wooden palisade. The fade-out of the rampart at the east end of section v, near the gatehouse, suggests that the entrance to the Norman fort was on the site of the present entrance.[1] In the thirteenth century the existing inner ward was built within the wooden and earthen defences; it was made high enough to dominate these. Since the outer footings of the north-west tower of this ward were at the base of the earthen rampart, it follows that the new structure was made as big as it could be without encroaching on the original defences. The gatehouse was built about thirty years after the inner ward; a mortar-line seen in the T-trench (section v, fig. 3) is probably the working level of this constructional period. Not long after the completion of the gatehouse the existing curtain wall and its towers were built on the rampart.

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[1] The reason the tail of this bank is consistently of shale when the subsoil of the castle knoll is clay, is that at a certain depth hereabouts the shale is reached (as can be seen in the re-excavated moat). These lower deposits were doubtless cast inwards over the top of the bank by the builders (following the ordinary technique of mound-building) and so reached the position in which we find them.

The chronological sequence thus set out resolved the difficulty which the earlier deductions presented when confronted with the plan: the outer defences being primary, the inner had to squeeze in as best they could. It also explains the absence of the usual defensive adjuncts at the main and postern (fig. 4) doorways of the inner ward. This ward was not intended for independent defence, but to provide dominant fighting platforms and view-points within and above the main defensive zone.

The sequence also explains how it is possible for the curtain wall to have been, at one point at least, where a drain has recently been taken under it near section iii, built without any foundations to speak of on an earthen rampart. Ramparts and mottes seem to need about 100 years to consolidate before stone structures can be built on them.[2] If the rampart is Norman, the extent of time required is easily found; but if it, like the curtain wall upon it, were to be regarded as later than the inner ward, time cannot be found without doing violence to any reasonable theory of the castle's history.

A small Norman capital of Sutton stone, with trumpet ornament of *c.* 1140, built into a structure of *c.* 1300 in the inner ward, suggested that there might have been a stone keep within the earthen and timber defences, as at Swansea and Kenfig Castles, Glamorgan. Analogy suggests the neighbourhood of the gatehouse for such a structure, but no stone foundations were found in the T-trench cut hereabouts. It is probable that no defensive works in stone existed at Kidwelly prior to the mid-thirteenth century, and that the capital came from a (destroyed) hall or chapel.

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[1] A similar fade-out can be seen by the northern gate, where the line of the bank has survived as a slight difference in the level of the surface.

[2] Hedingham and Norwich, both of *c.* 1140, are built on mottes, but these are very largely natural mounds, and the foundations probably go down into undisturbed soil. Guildford, *c.* 1170, is only partly on the motte. The more usual type built on mottes is the shell keep of late twelfth- or early thirteenth-century date, e. g. Cardiff.

For curtain walls on top of a rampart the earliest we can date accurately is Exeter. Here the bank is dated 1068, the curtain 1206/10. Cf. Hamilton Thompson, *Medieval Military Architecture*, 128.

The Bearing of the Excavations on the Chronology of Medieval Pottery

The six sections yielded fragments, mostly very small, of probably over a hundred vessels. The stratified materials overlying the virgin clay in these sections were of several dates. Particular attention is drawn to certain sealed deposits the upper limit of date of which can be fixed; the pottery types found in these, though unfortunately few, may assist in the determination of the chronology of medieval pottery in this part of South Wales.

(i) *Deposit of c.* 1110

The oldest deposit is the original rampart of the Norman castle, composed of loose shale with a talus of shale debris. This is unfortunately barren, except where it has been disturbed and relaid (section vi, fig. 3). Its date is *c.* 1110.

(ii) *Deposit of the Pre-Stone Period, c.* 1106–1275

The deposit recognized as next in date is a group of thin and regularly stratified occupation layers of burnt clay and charcoal, full of animal bones and potsherds. This deposit was cut through in section ii and is shown on fig. 3. It belongs to the pre-stone period (1106–1275) and is sealed by a mortar layer which marks the building of the inner ward.

Cooking Pots. The deposit contained 106 fragments of unglazed ware. These belonged to cooking pots, probably all wheel-made, of characteristic medieval form with slightly sagging base and outbent rim. Fig. 5 (nos. 1 to 9 and 11 to 19) illustrates the range of rim- and base-form.

The vessels are thick-walled, the paste coarse in grain, harsh and gritty, not well baked (being for the most part easily flaked with the finger nail); in colour black to reddish-brown on the surface, gray-blue in the core. There is no ornament.

A dozen of the fragments are of thinner and somewhat finer, but otherwise similar, body; one or two of these show simple ornament of wavy parallel lines scored in the clay. The only rim in this sub-group is figured (fig. 5, no. 10): it resembles the others.

There is ample evidence from other sites in Britain that the typical medieval cooking pot was in use in the Norman period. Three rimsherds recently found at Ogmore Castle, Glamorgan, in the rubble composing the base of the external stairs to the keep can hardly be later than the second quarter of the twelfth century, and are thus contemporary with similar sherds from the Norman fortress known as Caesar's Camp, Folkestone.[1] Castle Neroche, Somerset, also probably occupied in Stephen's reign, has yielded numerous examples;[2] as has Lydney Castle, Gloucestershire.[3] It is interesting

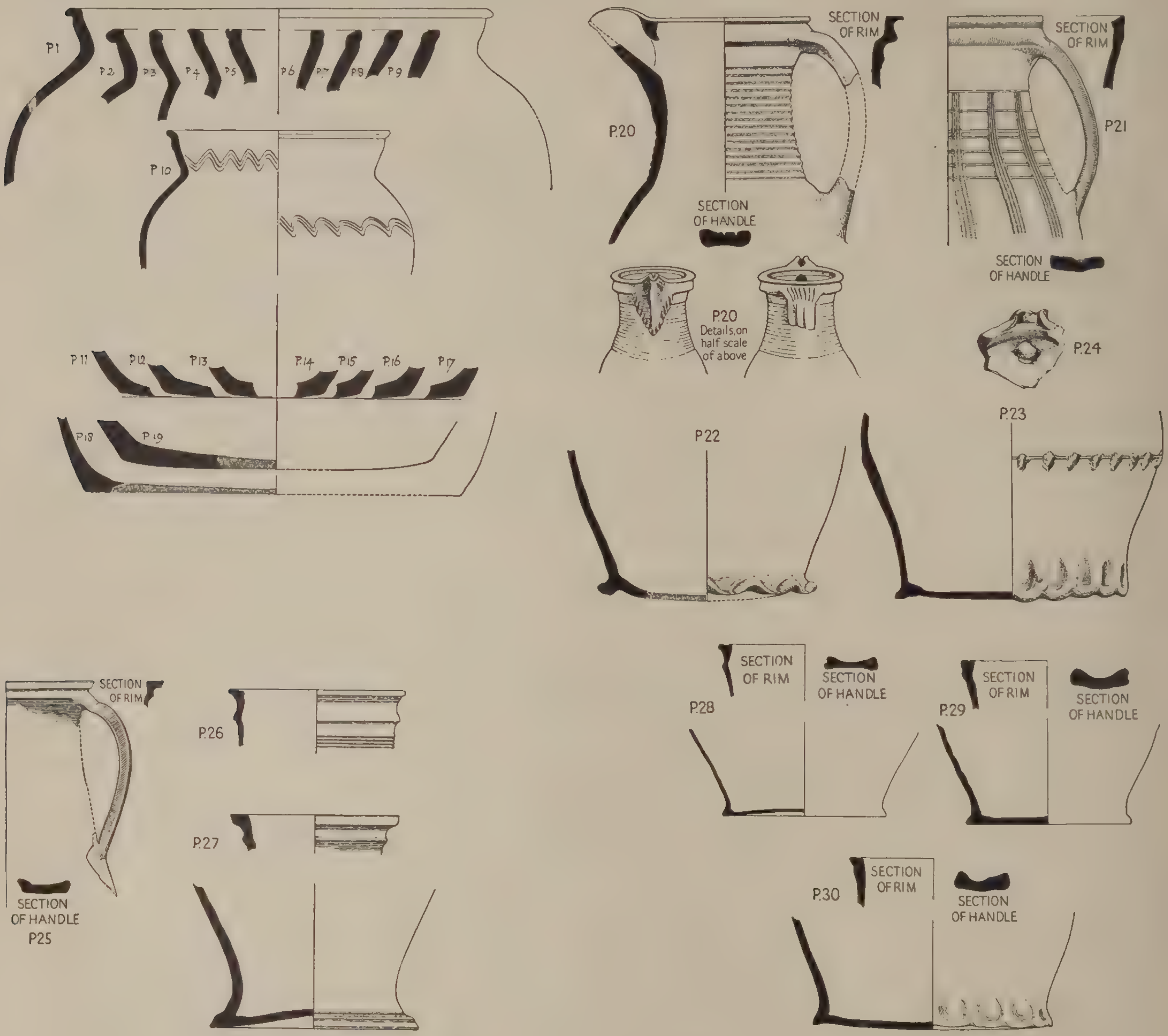

Fig. 5. Pottery sections. ($\frac{1}{4}$)

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[1] *Archaeologia*, xlvii, plate xx: a date in the reign of Stephen for this fortress is almost certain.

[2] *Somerset Arch. Soc.*, xlix, 1903, p. 46.

[3] *Antiq. Journ.*, xi, 1931, p. 257.

to notice that the folded rim, characteristic of the cooking pots recently found at the last-named site, is absent at Kidwelly.

That these cooking pots were descended from the Saxon pots of a similar form with rounded bases is hardly open to doubt, though the dearth of ceramic finds of the later Saxon period make it difficult to link up the series. In England, the pitcher from Richborough, probably of Offan date, represents an early stage in the evolution of the true sagging base.[1] A later stage in the development of this base is represented by a pitcher recently acquired by the Museum of Archaeology and Ethnology, Cambridge.[2] Further parallels to English sagging bases may be cited from the backward culture (seventh to tenth century) of the 'homesteads' of East Holland.[3]

The absence of glazed wares in this series of Norman sherds from Kidwelly is of interest. Other investigators of twelfth-century sites have had similar results. At Castle Neroche, only one sherd out of 675 was glazed; while in a collection from another contemporary site in Somerset, Orchard Castle, there are three such fragments. At Lydney Castle there was 'very little glazed ware'. At Caesar's Camp, Folkestone, glazed wares were only slightly more common—35 sherds out of a total of some 1,500.

Thus, while the complete homogeneity of the pottery in the deposit under review at Kidwelly may be regarded as due to specialization—the site being an open-air cooking place and the sherds representing the vessels used and broken on the spot—the parallel evidence stated above suggests that a deposit of general character of the same date at Kidwelly, were such to be found, would not differ materially from that under review.

(iii) *Deposits of the Building Period c.* 1275–1320

The next group of deposits results from the intense building activity of the period 1275–1320. Within these years the inner ward, the chapel, the gatehouse, and the curtain wall were built. These deposits, though complex at times, present well-defined characters. They consist of clay with stones, dirty earth, and mason's rubbish, with occasional layers of clean clay, patches or zones of mortar, or of charcoal and burnt clay. In them broken animal bones and potsherds are fairly numerous. Their varied characters explain their formation. Throughout the course of the building operations in the period indicated it was recognized that the ground level all round the inner ward, practically unchanged since Norman times, had to be raised. The area thus became the dump for any unwanted material, spoil from foundation trenches, etc.; mortar was mixed at various places on it from time to time and the workmen made fires, and cooked food on it.

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[1] *Third Report on the Excavation of the Roman Fort at Richborough*, 1932, plate xlii, no. 362.

[2] As yet unpublished. Saxon date is indicated by body form, by impressed ornament, and by a technique peculiarly Saxon—the use of the trimming-knife on the wet clay.

[3] e. g. Paterswolde in Holwerda, *Nederlands Vroegste Geschiedenis*, 273, fig. 90. F. G. Walker found a cooking pot with sagging base *in situ* on its hearth at Barton, Cambs., surrounded and overlaid by deposits which contained datable relics. He judged it to be of the Roman period, but this is not correct, as the latest datable associated objects were of the Anglo-Saxon period. The only difficulty one is faced with in accepting this example as evidence of the development of the type in Saxon times lies in the completeness of the evolution; it is a typical 'medieval' cooking pot (*Proc. Camb. Antiq. Soc.*, 1908, vol. xii, 304, plate xxii).

Theoretically these deposits, being rubbish dumps, might contain potsherds of any date since the beginning of the occupation of the site. But since coarse cooking-pot sherds of the pre-stone period, as described above, were rarely met with, it seems probable that the finds represent almost exclusively the period of activity within which the deposits were formed. Owing to the character of the deposits, additions resulting from later activities are hard at times to recognize; sealed deposits, where they occur, are therefore important. The T-shaped excavation by the gate-house (fig. 3) is of this character.

The cross-bar of the 'T' (section v) shows the base of the Norman rampart ('loose shale', in the figure) overlaid by deposits of debris and occupation layers. The line of mortar droppings certainly marks the working floor of the masons who were building the gatehouse which the area adjoins, *c.* 1300–20. This layer is seen also in the stem of the 'T' (section vi); here it rests on relaid shale debris (probably the material of the rampart taken from the site of the gatehouse) which contained fragments of a glazed pitcher thus dated prior to 1320. This pitcher is a common type at Kidwelly.

(a) *Green-glazed Pitchers: thick-walled, well-potted, ware hard, grey-blue*

The paste of such vessels is very hard and well-baked, close-grained, uniform, harsh to the touch, grey-blue in body colour, covered with a pink or red slip. The glaze is brownish-, pinkish-, or yellowish-green, very permanent. It covers the greater part of the exterior, but parts of the base and the rim may be unglazed. The rim usually has a well-marked moulding; the basal angle is probably always pinched out, the base sagging slightly (no. 22, fig. 5). The handle is flattened, deeply grooved or stabbed; the spout usually barred (no. 20, fig. 5), but a pinched-out lip occurs sometimes. One pitcher of the type (no. 21, fig. 5) had stabbed ornament at the spout imitating the sewn junction of a leather vessel. The body is probably always fairly full. It may be unornamented, or may show parallel, vertical, or radial grooves lightly drawn with a smooth point on the clay prior to glazing, or ripple cordons made on the wheel (no. 20, fig. 5).

Deposits above the mortar layer in the gatehouse trenches are demonstrably earlier than 1500, since an excavation of this date cuts diagonally across them (fig. 3, section v). We think they are much earlier for the following reasons: The present ground-level hereabouts is the level of the gatehouse floor and of the doorway to the inner ward; there must have been intense and continuous traffic between these two points, and it is on *a priori* grounds likely that the ground in its immediate neighbourhood would have been made up on completion of the building works of 1275–1320. The line of mortar droppings, the only persistent and continuous surface within these deposits, is too thin to have been in use for a prolonged period. We hold, therefore, that the deposits in question are none of them later than the completion of the building of the curtain wall, i.e. *c.* 1320. The most important fragments in these deposits are of pitchers. The type already described occurs, with two others.

(b) *Green-glazed Pitchers: thin-walled, hard fine white ware*

The more interesting of the two new types is closely related in rim-form to some of the coarser vessels already described. The dated specimens consist of a rim-and-handle (no. 25, fig. 5), fragments of body, and of a barred spout. Many sherds of the same ware were found elsewhere. A striking feature is the fine quality, hardness, and thinness of the body, which, in the bulge of a pitcher, may not be more than 2·5 mm. thick. The paste varies in surface colour from cream to ivory white, and in core from light grey to cream. The glazes are usually light green or yellow with dark green splashes or patches, giving a spotted or variegated effect. Some small sherds of this ware show raised strips, applied and moulded before glazing; but the form and position of these were not determined. The rims are expanded and flat, and are often finely moulded (nos. 25, 26, fig. 5). The basal angles are not pinched and the bases are flat, not sagged. The flat handles are not stabbed or striated. The type has barred spouts usually of parrot-beak form. One, seen from the inside, is figured (no. 24, fig. 5).

(c) *Pitcher (?), heavily green-glazed*

Fragments of a vessel, probably a pitcher, found in an upper layer of the sealed deposits, were as to body identical in texture and colour with class a, but the form of the base more closely resembled that of the finer jugs (see no. 27, fig. 5). The base was strongly moulded (reminding one of a late Belgic pedestaled vase), and a fragment of rim corresponding to it was found. The glaze was deeper and more lustrous than those hitherto described, in colour a rich green.

There were, perhaps, twenty other varieties of body, of glaze, or of form among the sherds recovered. These are mostly too small for record here, but they are preserved in the National Museum of Wales. Two types only require consideration.

(d) *Cooking Pots*: Rim and base fragments of cooking pots were found. In form these were like the pots of the Norman period already described. They differed, however, in material, being of thinner, harder, and better-baked ware, like the contemporary glazed vessels.

(e) *Vessels with polychrome decoration*: Two sherds of polychrome ware were found in the excavations, one in an unstratified deposit, the other in a deposit of the 1275–1320 period. These sherds were thin and white, like that of pitchers of class b, but the ware was even finer; they were painted in green and brown and were covered with a very thin transparent glaze.

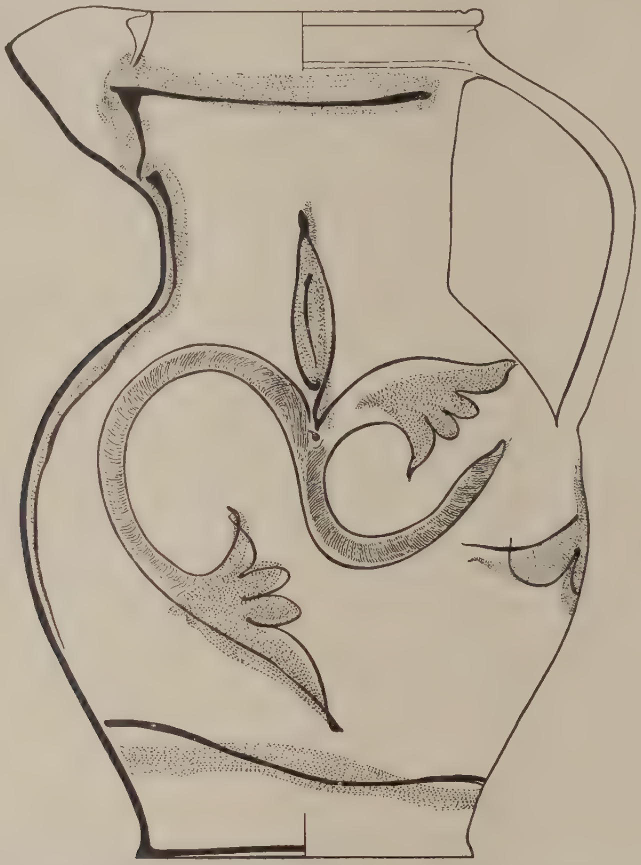

Fig. 6. Polychrome jug, Kidwelly Castle. (½). (Black outline on left represents section through median line.)

Associated find of pots. We were able to determine the character and the lower limit of date of a complete vessel of this latter type as the result of a fortunate discovery. At the external base of the east wall of the inner ward of Kidwelly, on the edge of the scarp, a small midden was found prior to our excavations, during reparation work by H.M. Office of Works. This contained numerous potsherds which were carefully collected. On examination in the

National Museum of Wales they were found to represent four vessels and no more. These have been reconstructed and are figured (pl. xxv).

The first, the vessel painted in polychrome, is a pitcher. It is 9·8 in. in height. It has a barred spout of parrot-beak outline, a thickened, flattened rim, a flat base, an undecorated flat handle--features met with in pitchers of class b, datable late in the period 1275–1320. But every detail is more delicate, the ware is thinner (only 2·4 mm. thick at the bulge), whiter, and of finer quality, and the lightness of the vessel is extraordinary. The polychrome ornament is seen to be a conventional leaf pattern in green and brown, outlined in dark brown paint, typologically datable round about 1300 (figs. 6 and 7). The whole is covered with thin transparent glaze.

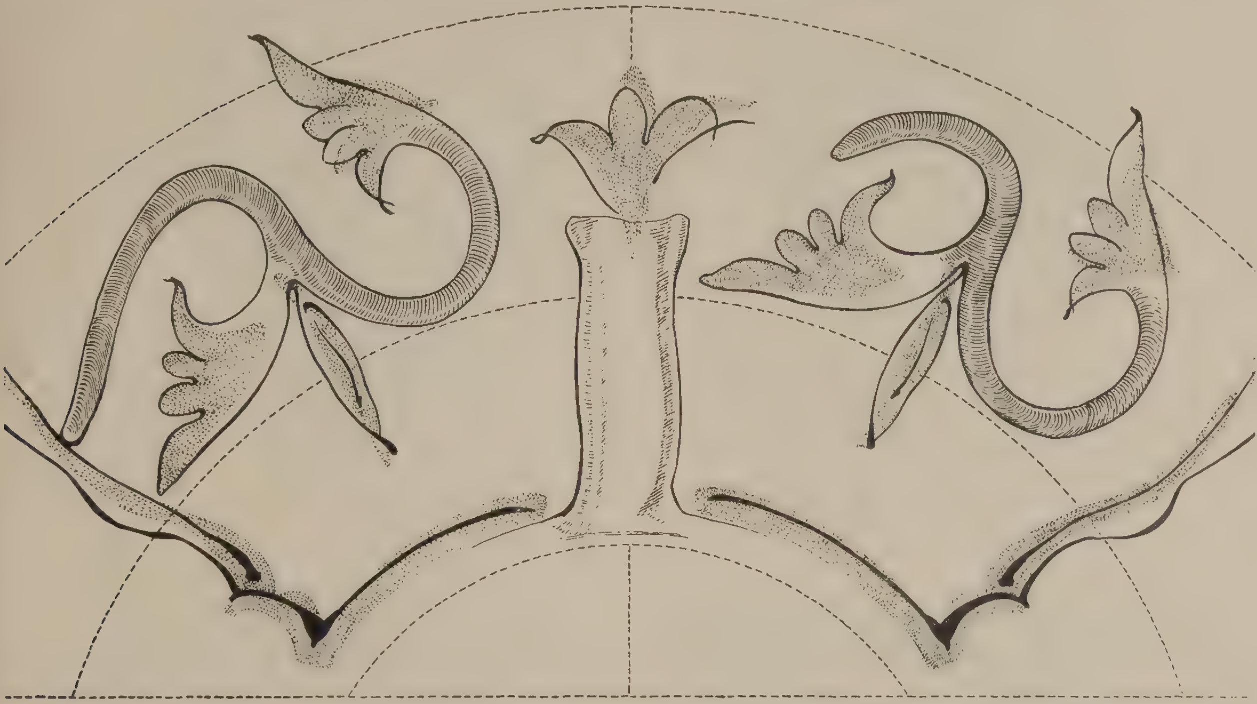

Fig. 7. Extension of the pattern on the jug, fig. 6. (½). (Black = dark brown ; stipple = green ; hatching = light lemon.)

The second (no. 29) in paste, glaze, and form belongs to the series of pitchers of class b already described. The ware is nearly as thin as the polychrome jug: thickness at bulge 2·5 mm. It has a barred spout (mainly restored) and flat base.

The third vessel (no. 30) is of a coarser fabric. It has a pinched-out base, a stabbed handle, and a lip, not a spout. It resembles late thirteenth-century pitchers of our class a, but is much coarser and rougher than these. It would probably be regarded as typically fourteenth century by most students of medieval pottery.

The fourth vessel (no. 31) is a cooking pot of well-baked ware, resembling the sherds in our thirteenth-century deposits already referred to; it has a band of incised parallel lines around the bulge.

Thus the evidence suggests that we have here a group of vessels probably all broken and thrown out at one time. Their discovery together at the foot of the inner curtain, within the area of the outer ward, makes it improbable that the deposit can be dated later than the erection of the latter (*c.* 1320), and provides evidence of a date of manufacture at the end of the thirteenth or the very beginning of the fourteenth century.

(iv) *Deposits of the Tudor period*, *c.* 1500

In one place only was a datable medieval deposit later than the above met with. This was in the T-trench by the gatehouse (fig. 3, section v), and consists of clay and builder's rubbish, filling a hole cut for the foundations of the addition to the gatehouse. The addition was built *c.* 1500.

It contained two small fragments of inlaid floor tiles, probably of the early fourteenth century, but no contemporary deposits.

THE PROBLEM OF THE POLYCHROME JUGS

The polychrome jug, and the fragments which reveal the presence at Kidwelly of two similar vessels, are remarkable in two respects—the refinement and character of the decoration, and the fineness of the potting. But the type is not completely isolated at Kidwelly; as has been pointed out, the green-glaze jugs of class b are similar in the quality of the pottery, and in details of structure, such as the lip (applied by the potter after turning the pot on the wheel), and the forms of rim and handle. These characters, and the spotty glaze, are well shown by a jug obtained from deep excavations in Cardiff[1] (pl. xxvii, 1).

The coarser wares of the period at Kidwelly were also influenced in form by the polychrome jugs, and they show a wash of white slip inside—an attempt to imitate the appearance of the finer ware.

If the polychrome jugs are native products, we are dealing at Kidwelly with the products of a single and fairly uniform tradition in the potter's craft; if they are imported, we are observing, in the pitchers of class b, a remarkable effort on the part of the Welsh or English potters to produce something com-

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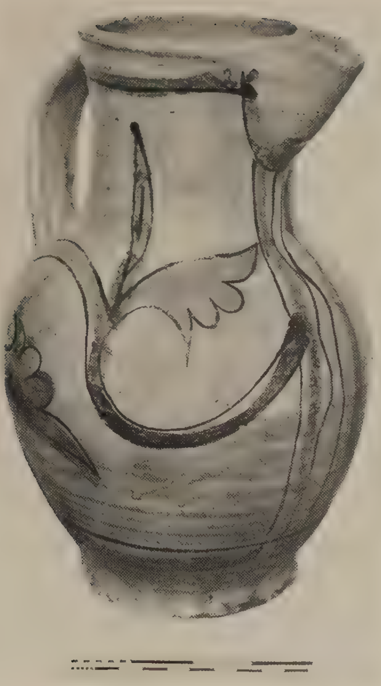
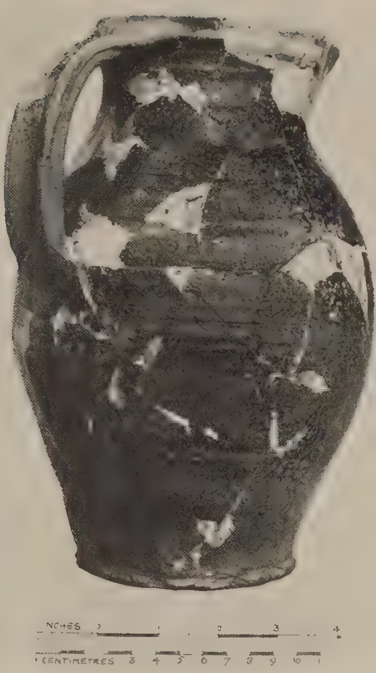
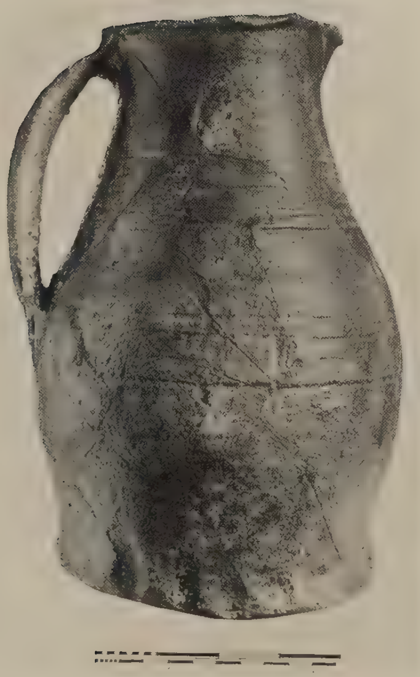
[1] The body form of this jug is, however, not that commonly met with in imitations of 'polychrome' jugs.



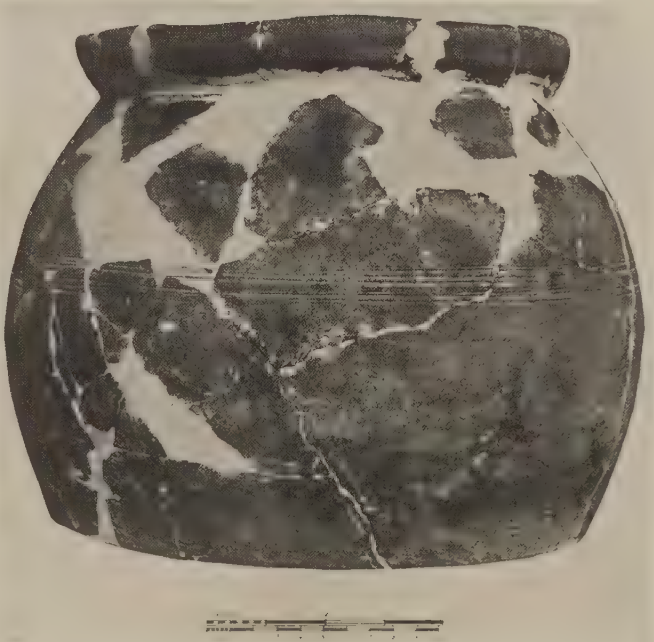
1. P. 28



2. P. 29



3. P. 30



4. P. 31

Associated find of pottery

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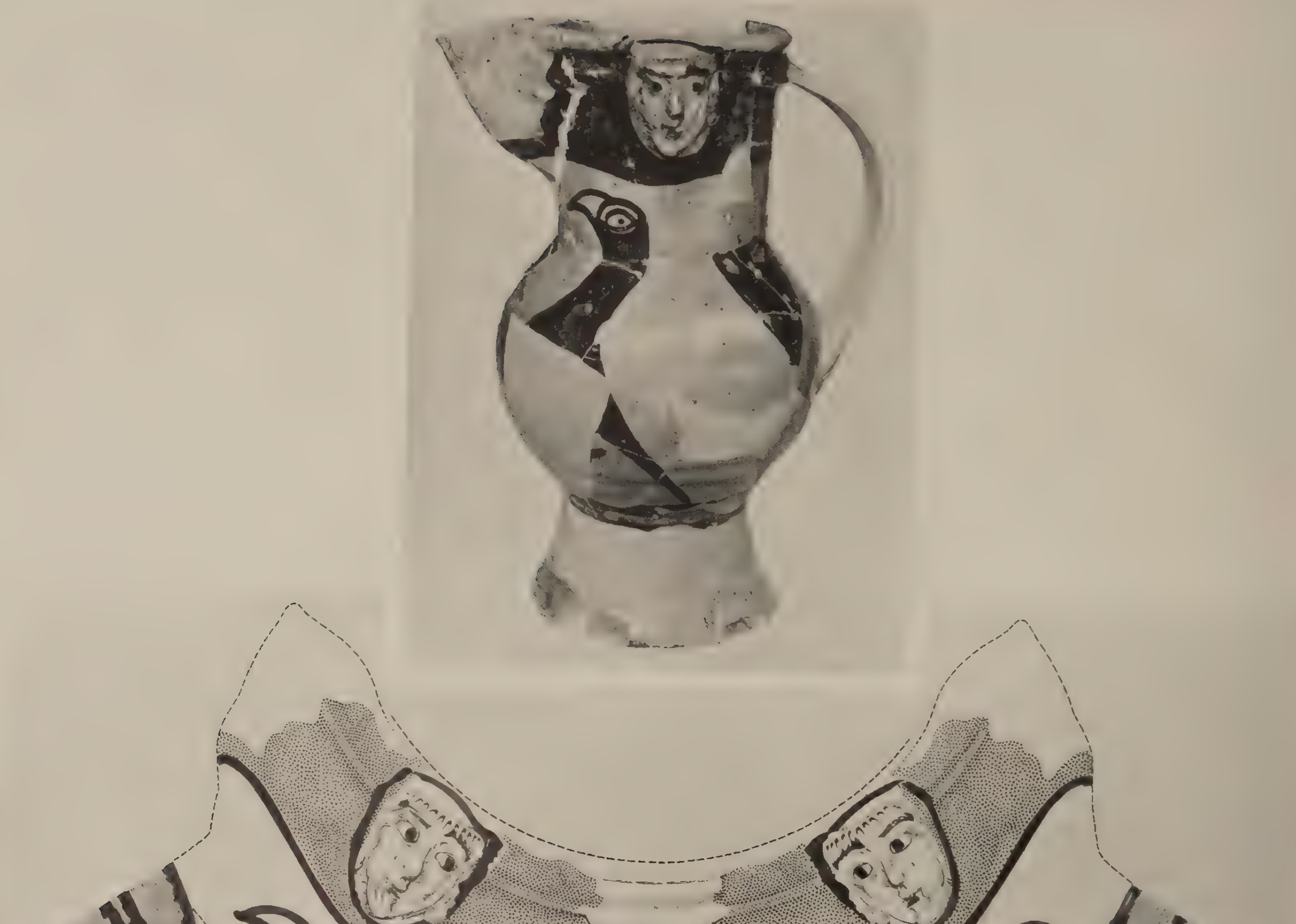

Cardiff polychrome jug ($\frac{2}{5}$): extended drawing ($\frac{1}{2}$)

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parable with them in shape and fineness of potting, though not in decoration.[1] The problem of the polychrome wares is therefore an interesting one and deserves extended treatment.

Finds of polychrome elsewhere in Wales. Cardiff provides a complete jug, and a fragment (a spout). The complete jug (pl. XXVI) is a very interesting specimen (height 9·3 in.). It was found in the High Street in 1893, and has recently been presented to the National Museum of Wales by Mr. P. B. Chatwin, F.S.A. The paste is very white, the potting very fine; the rim mouldings and the beak are similar to the Kidwelly jug, but the vessel has a bung-shaped foot, and is thus more akin to the thirteenth-century type of pot as generally recognized, than is the Kidwelly example. It is ornamented with heater-shaped shields in rich orange, barred and framed in chocolate-brown, and with opposed birds in brilliant green; it has a mask (? a pair) on the (damaged) rim. Its ornament is entirely consistent with a late thirteenth-century date. The whole effect is very rich, and there is a marked difference between this jug and the Kidwelly jug in warmth of colour and depth of glaze.

The Cardiff spout is, in form and paste, identical with both the Cardiff and Kidwelly jugs. It shows a pattern identical with the Kidwelly example, and in richness of colour and glaze is intermediate.

A fragment from a third Welsh site (Beaumaris in Anglesey) is of the characteristic thin white ware. It is a portion of the bulge at the base of the handle, and shows part of the three-leaf decoration normal to this position. The leaf is in green glaze, outlined with a broad brown stripe. The background is cream-coloured glaze. The general colour effect is rich, resembling the Cardiff type rather than Kidwelly.

There is thus evidence for six specimens from Wales (see Table, p. 124), ten are known from England (the majority from London), and one from Scotland. These will be described by Mr. G. C. Dunning, to whose researches the length of the London list is due; the present survey may close with a reference to the distribution of these seventeen polychromes, and a consideration of their origin.

The distribution map (fig. 8) shows the type to be massed in London, and otherwise confined to points on the south and west coasts. These latter places —Carisbrooke, Exeter, Cardiff, Kidwelly, Beaumaris, Kirkcudbright—are all sites of medieval castles, and we may assume that the ware was recognized as the finest of the period, and acquired for the tables of the great. The map provides no indication that the ware was made in Britain; a distribution by sea from a continental port which traded with London, but otherwise mainly with western

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[1] It may be noted that the finer wares of class b occur at Dyserth Castle in Flintshire (destroyed A.D. 1263), but they are very rare—2 sherds out of about 200 preserved.

Britain, is indicated. Had London been the place of manufacture there would almost certainly, among the find-spots already recorded, be some in the Home Counties, and a general distribution vastly different from that which we observe. The rigid limitation to the city suggests that these jugs reached the rich London merchants but never got beyond them.

Two further observations militating against manufacture in Britain may be made. One is that polychrome pottery, appearing suddenly some time in the thirteenth century, dies out equally suddenly, apparently at the beginning of the fourteenth; there is as yet no evidence that these glazes and colours were used in Britain thereafter. The known English painted ware is coarser in detail,[1] and the designs do not show the balance and technique of those under consideration. The other point is that there is no evidence that clay of the fineness required and used in the polychromes was then known to occur in Britain.

We turn therefore to the Continent. Since Messrs. Rackham and Read reproduced in colour a specimen of polychrome ware from London,[2] it has been recognized that these vessels show general relationship with a group of contemporary Italian wares, of which those from Orvieto and Faenza are the best known. These vessels with their characteristic painting in green and brown manganese colours were already developed in Italy by the middle of the thirteenth century. The earliest dated example that we can cite is a jug from Faenza with the Pasi arms, belonging to Bishop Giacomo Pasi, who died in 1273.[3]

But that the English finds come from either Orvieto or Faenza is improbable, as the jugs from both these cities seem to favour the pinched-in spout. The characteristic parrot-beak spout is, however, not unknown in Italy; a pitcher from Rome with the arms of the Colonna may be cited as offering a fairly close parallel to our vessels.[4] The use of blue instead of green paint shows that this is later than the English group, but the form may well be a survival.

At this stage the spout-forms other than the parrot-beak may be defined. Two main types are met with in western Europe, the pinched-in spout, and the tubular. The former, a most beautiful form, has been much neglected in the west; it is present in Britain in Roman times, but not thereafter, so far as we are aware.

The second type, the tubular spout, is a separate circular projection springing from the shoulder of the vessel. Though probably primarily a Mediterranean form, it is found in western Europe in the Dark Ages. Examples of jugs with such spouts from Rhenish sites, dating probably from Carolingian

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[1] e.g. Cheam, *Surrey Arch. Coll.*, xxxv.

[2] Rackham and Read, *English Pottery*, plate III.

[3] Argnani, *Ceramiche arcaiche faentine*, plate III.

[4] Bode, *Die Anfänge der Majolikakunst in Toskana*, 9.

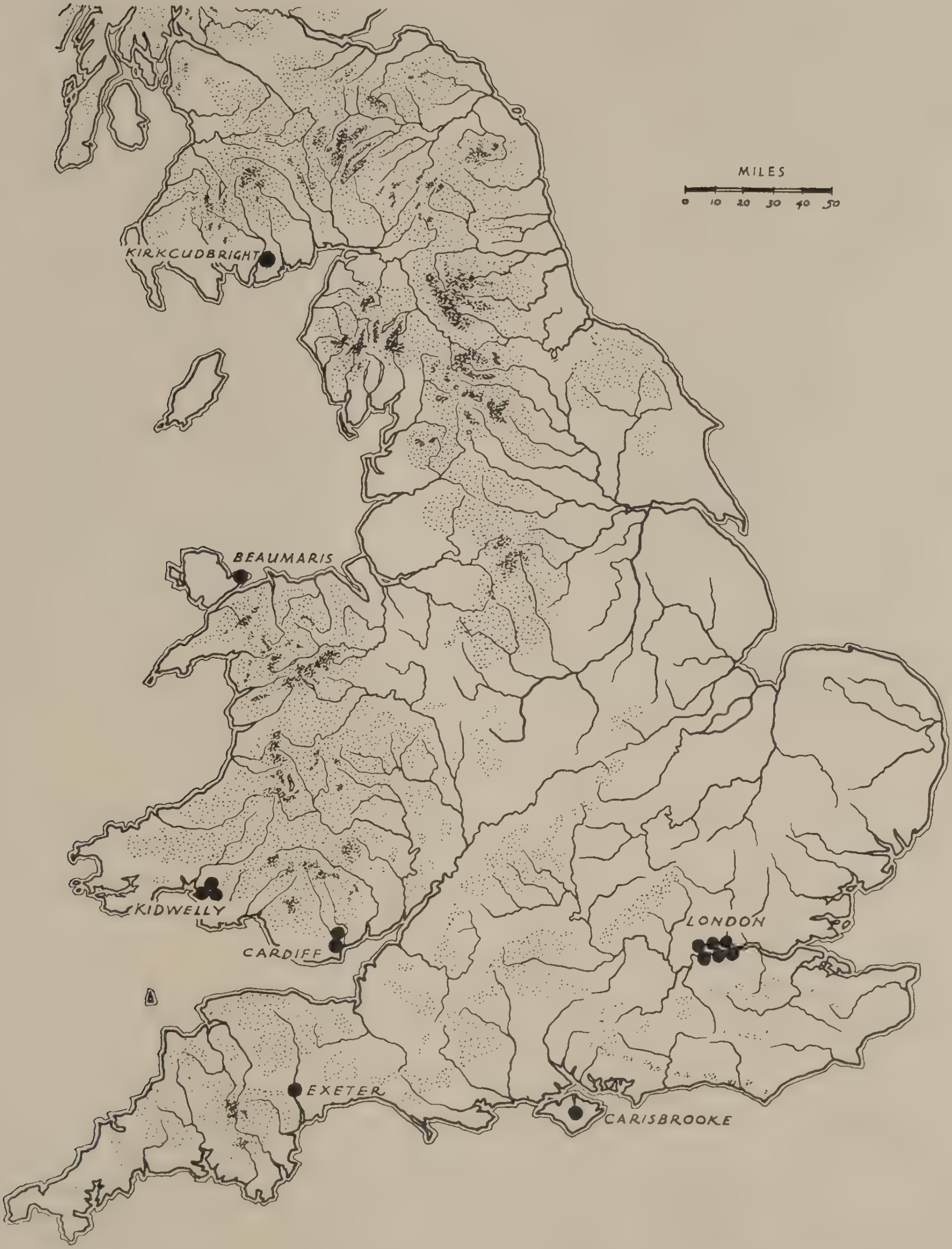

Fig. 8. Map of England and Wales showing the distribution of polychrome jugs.

times,[1] are common. English examples, some half-dozen of which are known, probably result from the commercial and other connexions existing between the Rhineland and this country in Saxon times. Reference may be made to two published examples: an eighth-century one found at Richborough,[2] and another from Coleman Street, London.[3]

In these the tendency of the tubular spout to move upwards to the rim is well marked. The type thus presents a convergence towards our parrot-beak, or, as it is better described, the bridge-spout. To this we may now turn. The history and distribution of the bridge-spout in western Europe is illuminated by a study of the type in France by J. de Saint Venant.[4] He describes it exactly as it occurs at Kidwelly.

This author shows by figures and a distribution map that these bridge-spout jugs—*vases à bec avec pont*—do not occur in northern France, but are common in southern France; that the typical curved spout—parrot-beak—of our polychrome jugs is met with as early as 1101 (tomb in Angoulême), and that the origin of the type goes back in the area to the fifth century; the earliest form (his *Montauban* sub-type) is dated in this century.[5] The cylindrical type of vessel, moreover, illustrated in this country by a Cardiff jug (pl. XXVI), occurs in the French series.

This is as far as we can carry the problem at present. The evidence suggests that while the decoration of our polychrome pots is central Italian in character, the spout-form, the typical parrot-beak, is a southern French feature, presumably transmitted to Italy later than the date of our British polychromes. The manufacture of these somewhere in southern France seems probable; it will be observed, moreover, that their distribution in Britain favours Bordeaux or some adjacent port as the place of shipment. Research in the museums of southern France and, it may be added, those of towns in Ireland reached by the medieval wine trade, is clearly indicated as likely to produce definite results.[6]

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[1] e.g. Graves at Andernach: *Bonn. Jahrb.*, vol. 105, pp. 103 ff. and plate XIV.

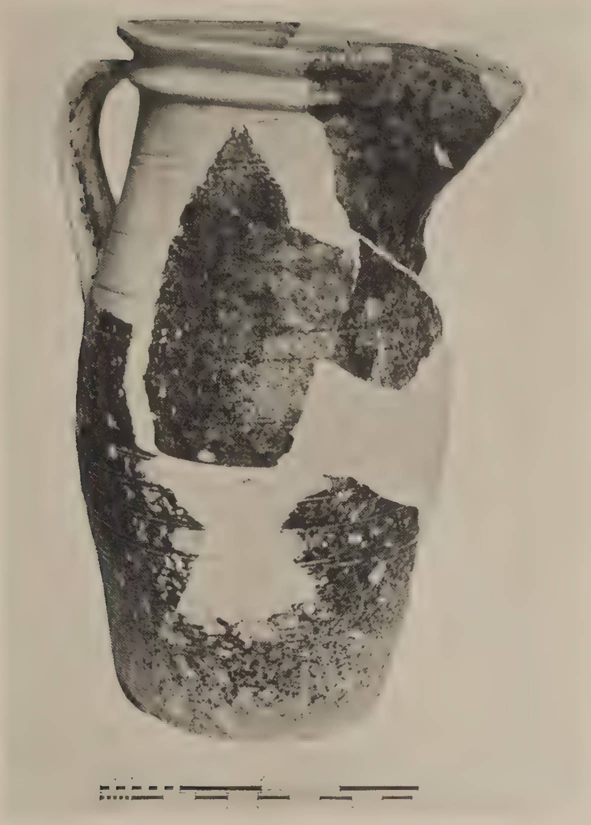
[2] See p. 109 of this paper.

[3] *Antiq. Journ.*, xi, 259, fig. 8.

[4] 'Anciens Vases à Bec', *Bulletin Monumental*, lxiv, pp. 3-62. We owe this reference to Mr. G. C. Dunning.

[5] A. Conil (*Revue des Musées*, 1926, p. 209, fig. 4, 31 and 36) also shows an example from a Merovingian grave in Dordogne.

[6] A possible connexion between Central Italy and Aquitaine at this period is suggested by the migrations of the Papal Court. Boniface VIII's seizure at Anagni and his death in 1303 were followed by the short pontificate of Benedict XI, after which the struggle of the factions caused a long vacancy. This was ended in 1305 by the election of Bertrand de Got, son of a Gascon nobleman and Archbishop of Bordeaux. After his coronation at Lyons the new Pope, Clement V, resided for about two years in Bordeaux and western France. It is known that the craftsmen whom Boniface VIII had attracted to Rome were scattered after his death. It is, therefore, possible that



Polychrome jug, Cardiff

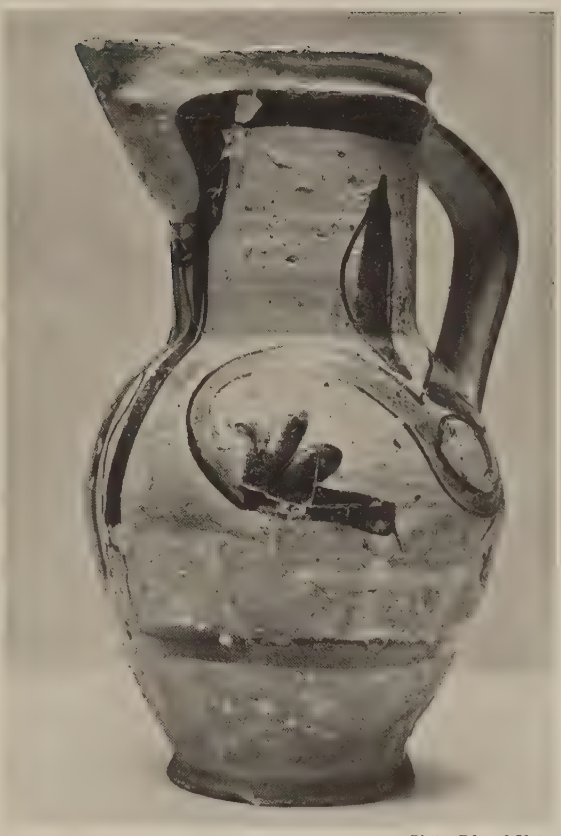
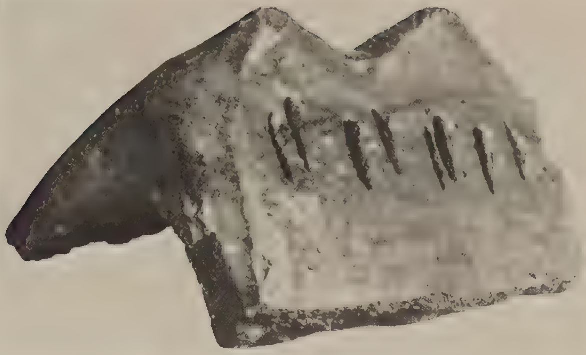


Photo. Edward Yates

Polychrome jug, London

Published by the Society of Antiquaries of London, 1933



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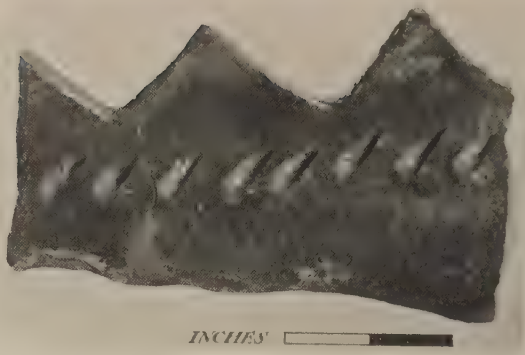

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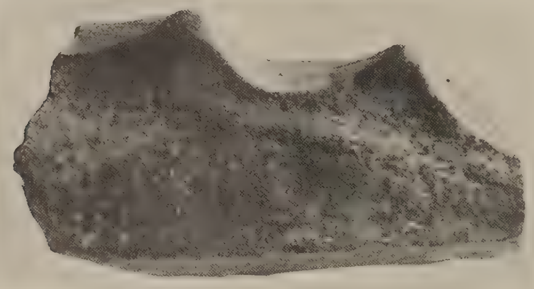

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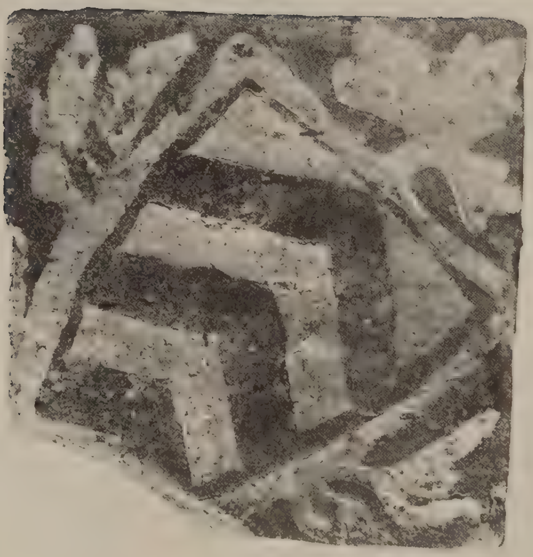

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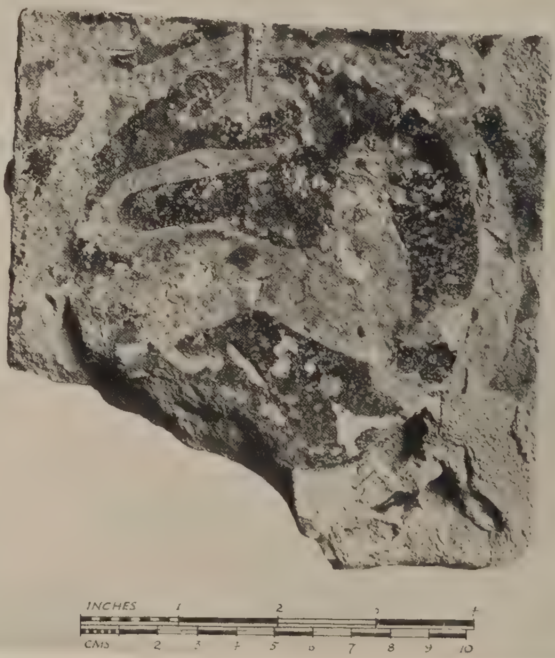

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Kidwelly Castle: roof- and floor-tiles

Published by the Society of Antiquaries of London, 1933

ROOF- AND FLOOR-TILES

Roof-tiles. The roof-tiles are all glazed ridge-tiles. There are two types. The earlier are of coarse, thick (1 in. thick near the angle), ill-baked, gritty ware, similar to that of the twelfth-century cooking pots, but even coarser; the ridge is serrated (the serrations moulded by hand), the flanks being decorated with deep vertical incisions immediately below the ridge (pl. XXVIII, fig. 1). The surface is partially covered with a thin greenish-yellow glaze, sometimes mottled with reddish-brown. These tiles were common on the site. One of them showed at one end the base of a circular finial.

The later type (pl. XXVIII, fig. 3) was rare. The tile was thinner and lighter, the sandy clay was of much closer texture, better baked; the crests were scalloped—cut[1] into a succession of waves, not moulded into sharp peaks; there was no incised ornament. The green glaze was good; it covered the whole tile and was uniform in tone. It is evident that here—as elsewhere in South Wales—only the ridge tiles were made of pottery, the roofs being covered with stone tiles, slates, or wood shingles.

Fortunately we can date the first type of tile, a large number having been found on the site of the earlier hall (*c.* 1300, p. 99) on the east side of the inner ward. As there is evidence of very slight later alterations to this building, it may be assumed that the tiles are contemporary. The second type probably, but not certainly, came from the Tudor building. This date (*c.* 1500) is itself highly probable, as the character of the glazes[2] on numerous examples of such tiles from medieval sites at Cardiff and Llandaff in the National Museum of Wales suggests a date not earlier than 1500.

It is relevant to point out that the commonest type of ridge tile found on medieval sites in South Wales is not met with at Kidwelly; this type resembles the earlier Kidwelly type in outline, but the serrations are cut, not moulded, and the paste and glaze are of better quality (pl. XXVIII, fig. 2, from a site in Cardiff). The reason this type is not present at Kidwelly is evidently because there was little or no building during the period *c.* 1350–1500 (see p. 101). Its interest in the present connexion is that it provides us with the intermediate member of a sequence, showing the evolution of the ridge-tile in South Wales between *c.* 1275–*c.* 1550 (pl. XXVIII, figs. 1, 2, 3).

Floor-tiles. These are of two types. The one type is oblong, 5¼ × 2½ in., green-glazed, without ornament. The glaze is indistinguishable from that

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this polychrome technique may have been brought to Aquitaine by a displaced potter, following some patron attached to the Papal Court.

[1] In wood technique, as with a spokeshave.

[2] Rich brown, and yellow, as well as the green characteristic of Kidwelly.

occurring on many of our thirteenth-century vessels. The reddish body is well baked, normal for medieval tiles.

The second type is a square tile of the usual size, inlaid with white slip and glazed, by no means of the finest quality. The ornament and character of the tiles of this type found on the site fits in well with the building period, 1275–1320, and it is possible to distinguish typologically earlier and later examples. The earlier are represented by two conventional floriated four-tile patterns, of which one is figured (fig. 9), and by a tile showing a lion sinister passant within a circle (pl. XXVIII, fig. 5). The later are heraldic: shields showing the leopards of England (fig. 10) and the chevrons of Clare (pl. XXVIII, fig. 4).

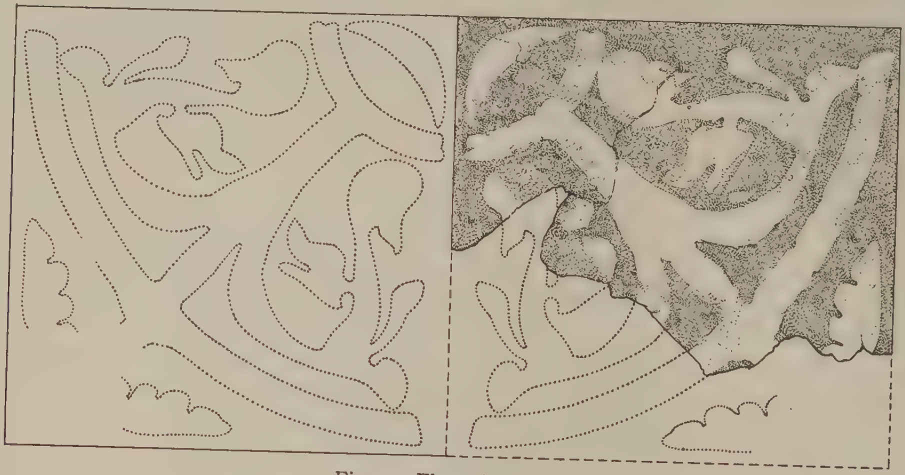

Fig. 9. Floor-tile. (½)

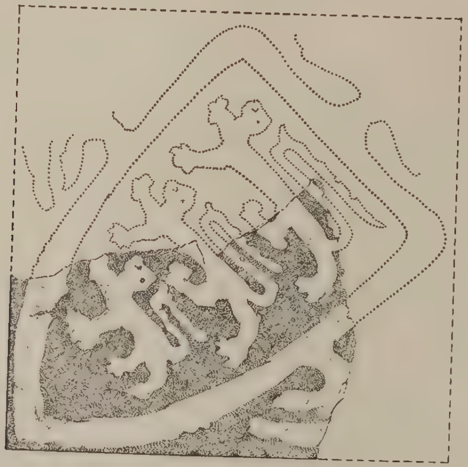

Fig. 10. Floor-tile. (½)

SUMMARY OF THE CERAMIC EVIDENCE AT KIDWELLY

The pottery from the stratified deposits is fragmentary, and therefore difficult to interpret.

That of the first period (1106–1275) consists of cooking pots of normal medieval form, unglazed, of coarse, ill-baked ware.

That of the building period (1275–1320) consists of glazed pitchers or jugs and unglazed cooking pots. No other types were identified. The latter are similar in form to the early examples, but of thinner, better baked ware. The pitchers are of two main types. Both are well modelled, and of well-baked hard ware, but the former are of blue-grey body, thick-walled, with pinched basal angles, sagging base, and stabbed handles; the latter are of whitish ware, thin-walled, with flat bases not pinched out, and with plain handles. The mode of occurrence of these types in the stratified deposits shows that the former are the earlier. Examination of the sherds from Dyserth Castle, Flintshire, destroyed 1263, confirms this, for the delicate wares are here very rare.[1]

The types fade into one another: no. 29 (pl. xxv, 2 and fig. 5), for example, has the paste and glaze and base-form of the delicate wares, but the rim-form is not characteristic (as nos. 25 and 26, fig. 5), but is more like no. 21, fig. 5. No. 27, a heavy ware jug, has the rim-form of the delicate pitcher, no. 25. Again, no. 20, one of the coarse ware pitchers, has the rim form characteristic of the thin-ware jugs (e.g. no. 25).

A third type of pitcher, the polychrome jug, is rare and exotic; the more finely potted of the wares referred to above represent an effort at imitation on the part of the English potter.

Bridge-spouts are characteristic of the Kidwelly pitchers; in the polychrome jug and its imitations these are of parrot-beak outline. Tubular spouts are not present at Kidwelly.

No vessel or sherd with internal glaze occurred in datable deposits.

There is no identifiable evidence of the presence at Kidwelly of the tall, very narrow pitcher with expanding (bung-like) foot, frequently referred to as the thirteenth-century type. It was not found, or not identified, on St. Catherine's Hill,[2] and we doubt if it is of general distribution. Our Kidwelly types, at all events, were stouter, and the evidence suggests that the characteristic full-bodied medieval pitcher was here fully developed as early as the thirteenth century. That this should be so is after all not surprising, in view of the early maturity within the medieval period reached by other crafts, and the recognized perfection of other thirteenth-century products of the kiln, the floor-tiles. It is probable that the standard of potting illustrated by one of the white-ware beakers, no. 29, with its wall at the handle-junction only 2·5 mm. thick, was not surpassed in Britain until the Renaissance.

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[1] Now in National Museum of Wales. See *Arch. Camb.*, 1915, 47.

[2] Hawkes, Myres, and Stevens, *St. Catherine's Hill, Winchester*, 1930, p. 236.

Beauty of form, as well as fine potting, marks the best products of the period. This is well shown in the fragmentary vessel, no. 27, fig. 5, the mouldings of both rim and base of which are of monumental dignity.

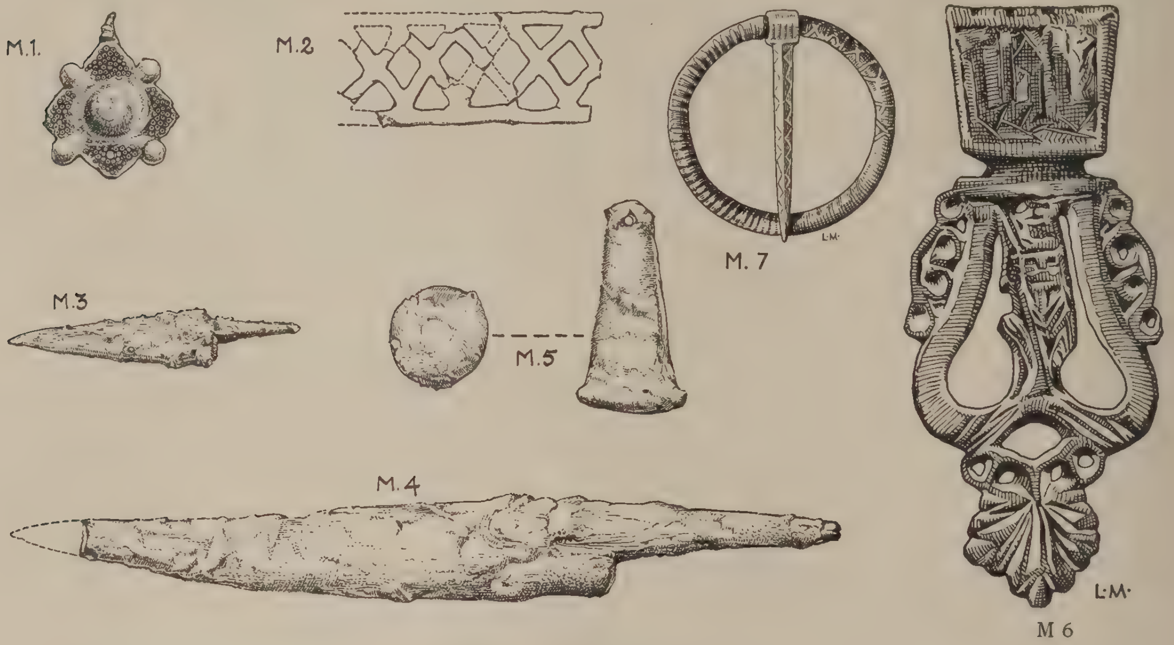

Fig. 11. Metal objects. (½)

Ridge- and floor-tiles. The latter present no features of special interest. The former are represented by glazed examples certainly of the late thirteenth and probably of the early sixteenth centuries respectively. They enable a provisional type sequence for this ceramic product to be prepared.

Other Finds

Metal objects. A large knife (no. 4, fig. 11) came from the Norman cooking-place, and is therefore probably of the twelfth century. Four other objects (fig. 11, nos. 1–3, 5) came from deposits almost certainly of the period 1275–1320. These are a small knife blade, an ornamental plaque of gilt bronze with a broken hook (? a clasp or brooch), a piece of fretted bronze, also gilt, and a lead plummet.

Other metal objects from the excavations include iron nails, an iron buckle from horse-harness, pieces of lead, and sheet bronze.

Two interesting objects were found during the clearance of surface soil prior to the excavations under review.

(1) Strap end (no. 6, fig. 11). The base to which the leather was attached has ihc in black letter. The end is perforated, the central member being decorated with an incised figure of St. Christopher. Date: fifteenth century. (2) Annular brooch (no. 7, fig. 11). The ring and the pin are decorated with lightly incised geometrical lines. Date: twelfth or thirteenth century.

Animal bones. These are the subject of a special report by Mr. Colin Matheson, to whom we are much indebted (see Appendix B). Mr. Matheson recognizes ox, sheep, pig, horse, dog, red and roe deer, and maybe goat, the cattle being by far the most numerous. He notes that the domestic animals were of small breed, and emphasizes the interest of the occurrence of roe deer.

LIST OF POLYCHROME JUGS

Provenance.	*Character.*	*Reference.*	*Present Location.*
	WALES.		
1. Kidwelly.	Jug: complete. Characteristic thirteenth-century leaf ornament in green and brown paint.	Present paper, pl. xxv, 1, and figs. 6, 7.	National Museum of Wales.
2. "	Small fragment. Decoration in brilliant colours, as no. 4.	Unpublished.	"
3. "	Small fragment. Decoration in subdued colours, as no. 1.	Unpublished.	"
4. Cardiff: Lloyds Bank site, High Street.	Jug, fairly complete. Decoration of birds and shields in orange and green, with mask in low relief on rim.	Present paper, pl. xxvi.	"
5. Cardiff: a site in High Street.	Fragment (spout only).	Unpublished.	"
6. Beaumaris: Castle.	Fragment. Base of handle with leaf ornament.	Unpublished.[1]	University Museum, Bangor.
	ENGLAND.		
7. London: Doctors' Commons.	Body and foot of jug, rim missing. Decoration as Cardiff (no. 4).	Present paper. Fig. 13, *e, f.*	On loan to London Museum from Pitt-Rivers Museum, Farnham.
8. London: Blossoms Inn, Lawrence Lane.	Fragments of rim and upper part of body. Decoration as Cardiff (no. 4).	Present paper. Fig. 13, *c.*	Guildhall Museum.
9. London: Blossoms Inn, Lawrence Lane.	Fragment (of rim, neck, and handle). Leaf ornament probably resembling no. 12. (Bishopsgate Street).	Present paper. Fig. 13, *d.*	"
10. London: Moorgate.	Jug, fairly complete. Leaf ornament in shield-shaped frames.	English Medieval Art; Catalogue of Exhibition. V. and A. Museum, 1930, No. 238.	London Museum.
11. London: Regis House.	Jug. Identical in form and decoration with Kidwelly (no. 1).	Present paper. Fig. 14, *b*, and pl. xxvii, 2.	Collection at Regis House.
12. London: Bishopsgate Street.	Jug, complete. Leaf ornament in rectangular panels.	G. M. Catalogue, p. 177, pl. lxvi, 11: Rackham and Read, English Pottery, pl. iii.	Guildhall Museum.
13. London: Sussex Place, Leadenhall Street.	Fragment (mask), as Cardiff (no. 4).	Present paper. Pl. xxx, 1.	"

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[1] Identified by Mr. G. C. Dunning.

LIST OF POLYCHROME JUGS (*continued*)

Provenance.	*Character.*	*Reference.*	*Present Location.*
14. London: 'City'.	Fragment.	Unpublished.	Victoria and Albert Museum.[1]
15. Carisbrooke: Castle.	Small jug. Decoration as Kidwelly and Regis House (nos. I and II).	Present paper. Fig. 14, *a*.	Carisbrooke Castle Museum.
16. Exeter.	Large jug with animal spout, decorated with figures in the round, scroll decorations and shields.	Present paper. Fig. 15, and pls. XXIX, XXX.	Historical Museum, Exeter.
	SCOTLAND.		
17. Kirkcudbright.	Two fragments, of body and spout.	*Proc. Soc. Antiq. Scot.*, xlviii, 391.	Stewartry Museum, Kirkcudbright.[2]

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[1] Information from Mr. Bernard Rackham.

[2] Information from Mr. John Charlton.

APPENDIX A

Inventory of Medieval Polychrome Jugs found in England and Scotland

By G. C. Dunning

The following list deals with polychrome jugs other than those from Wales, described and illustrated above (p. 115 and figs. 6, 7 and pl. XXVI). Throughout, a uniform method has been adopted in illustrating the painting in three colours on the jugs, so as to dispense with long descriptions. In all examples the outline of the pattern, carried out in dark brown by fine brushwork, is represented by solid black; the areas painted green are stippled, and the yellow or very light brown parts are hatched. As a group, the clay of the jugs is remarkably uniform; it is of the hardest quality, free from grit, and varies from cream-colour to light buff, but the differences are so slight as to be unimportant. The glaze is transparent and almost colourless; it is thin and imperfectly fused, showing a lumpy appearance under the microscope. Tests of the glaze on the Bishopsgate Street jug and the Blossoms Inn fragments, kindly made by Dr. H. J. Plenderleith in the British Museum Laboratory, give identical results for a glaze with lead basis, as might be expected.

LONDON

Four nearly complete jugs and fragments of four others are known from the City of London. The jugs are scattered over nearly the whole area enclosed by the medieval town-wall (fig. 12). The relative and numerical abundance of the jugs in London is notable compared with their limitation (from one to three examples) on castle sites elsewhere in Britain, suggesting that the jugs were imported to London, and thence distributed by sea round the coast (see map, fig. 8). The fact that the designs on jugs found on the castle sites—the foliage patterns and the birds and shields—are all represented in London, and that the Aldersgate Street jug has no counterpart, either in form or design, is further evidence in support of this. The Exeter jug is in a class by itself.

Doctors' Commons (fig. 13, *e*, *f*). On loan to the London Museum. The rim, spout, and handle are missing. The jug is decorated with two opposed birds with long tail-feathers, possibly peacocks, and three heater-shaped shields. Below the handle is a triple leaf. The jug probably had applied masks on the rim, as on the jug with identical design from Cardiff (pl. XXVI), but unfortunately the neck is broken below their place of attachment.

Blossoms Inn, Lawrence Lane (fig. 13, *c*, *d*). Two fragments in the Guildhall Museum. The larger fragment shows part of a bird and a complete heater-shaped shield, very similar to the design on the jug from Doctors' Commons. The other fragment has the upper part of a ribbed leaf, similar to that on the Bishopsgate Street jug (fig. 13, *b*). Up to the present this motif has not occurred outside London.

Moorgate (fig. 13, *a*). In the London Museum. The jug, 9·85 in. high, is decorated on both sides with a conventional leaf and stem within an inverted triangular border resembling a shield. Below the handle is a triple leaf, and beneath the spout is a vertical wavy line, well shown in a photograph of the jug in *Apollo*, xii, 338, fig. 8, taken before the spout was correctly restored in plaster.

Regis House, King William Street (fig. 14, *b* and pl. XXVII, 2). In a collection of antiquities found on the site at Regis House. The jug was found in December 1930 in a well close to the Monument Street frontage of the site. The well was about 5 ft. in diameter and lined with wooden staves; it had been sunk into the gravel, but only the lowermost 3 ft. remained below the basement of the modern building. In the filling were found the polychrome jug, a small green-glazed jug, part of a cooking-pot, and a tile. Finds from medieval wells may cover a considerable period of time, but in this instance the objects were associated at the bottom of the well, and may be treated as roughly contemporaneous.

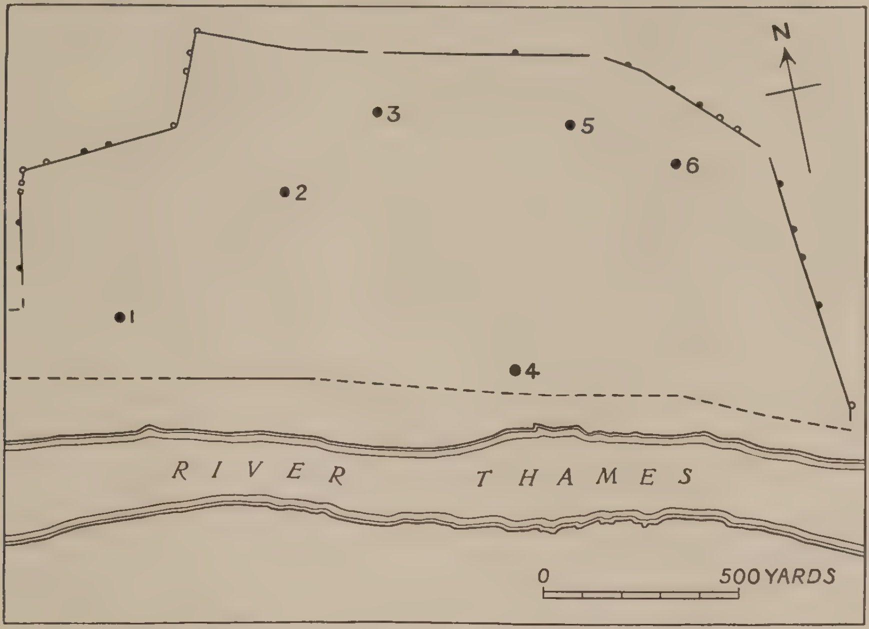

Fig. 12. Map of the City of London showing distribution of polychrome jugs.
1, Doctors' Commons; 2, Blossoms Inn; 3, Moorgate; 4, King William Street; 5, Bishopsgate Street; 6, Sussex Place.

The polychrome jug, 10·15 in. high, is complete except for the handle, now restored in plaster. On each side is a design of two leaves joined by a curved stem, and an upright bud in the middle, very similar to the design on the Kidwelly jug (figs. 6, 7). Below the handle is a triple leaf, and there are two vertical wavy lines below the spout.

Fig. 14, *c*, 1. Small jug of hard sandy buff ware, with dark green glaze on the neck and upper part of the body. The edge of the base is thumbed down in four places, but the vessel stands insecurely on the sagging base. The rim is thin, inbent, and bevelled on the outside. This pot is probably the prototype of the small jugs with cylindrical neck usually assigned to the fifteenth century, for example, one found with a document of the reign of Henry V at Ardleigh, near Colchester.[1]

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[1] *British Museum Catalogue of English Pottery*, p. 72, B 124, fig. 63; *Arch. Journ.*, lix, 10, fig. 17.

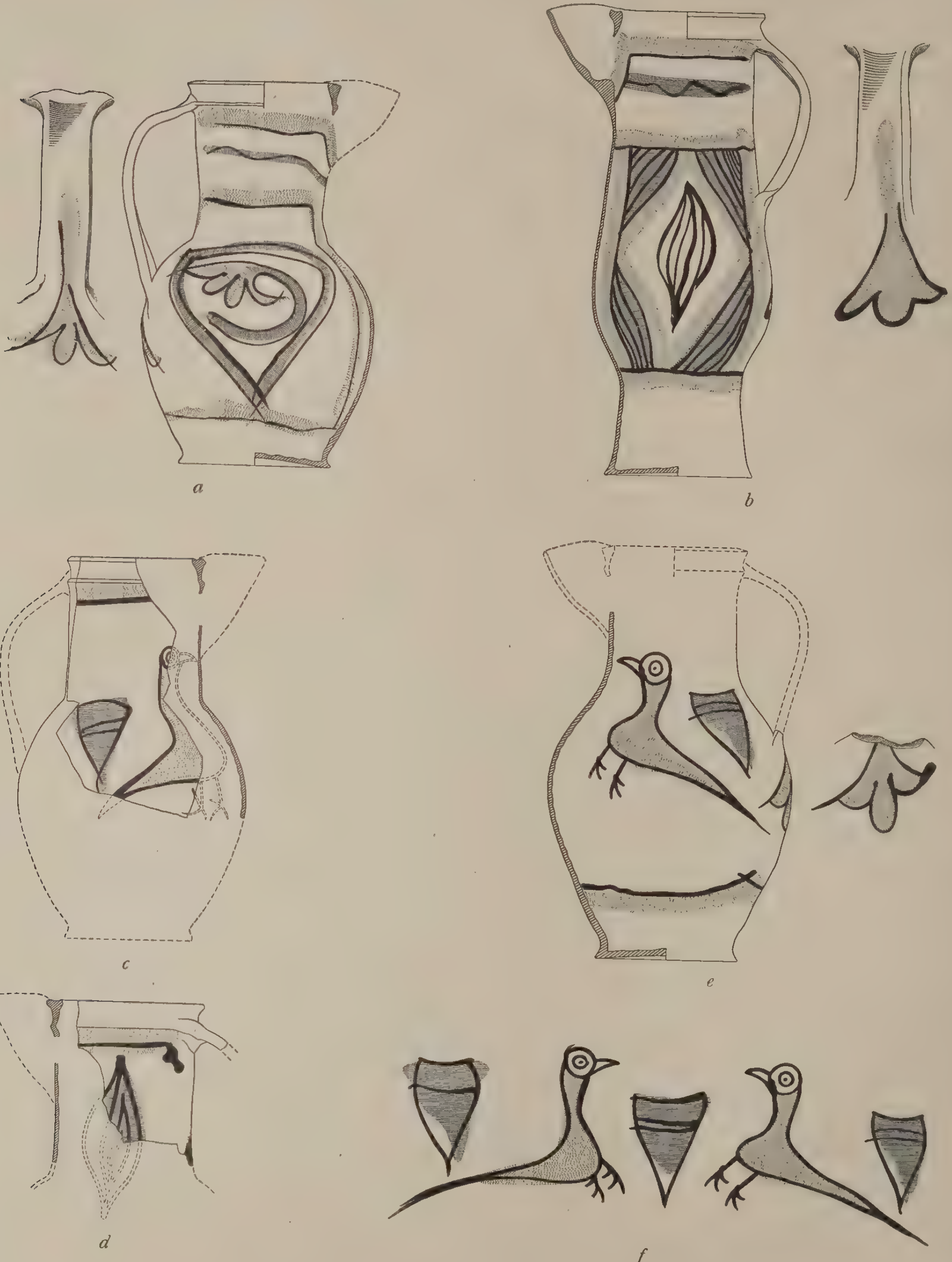

Fig. 13. Polychrome jugs from London. ($\frac{1}{4}$). *a*, Moorgate; *b*, Bishopsgate Street; *c*, *d*, Blossoms Inn; *e*, *f*, Doctors' Commons.

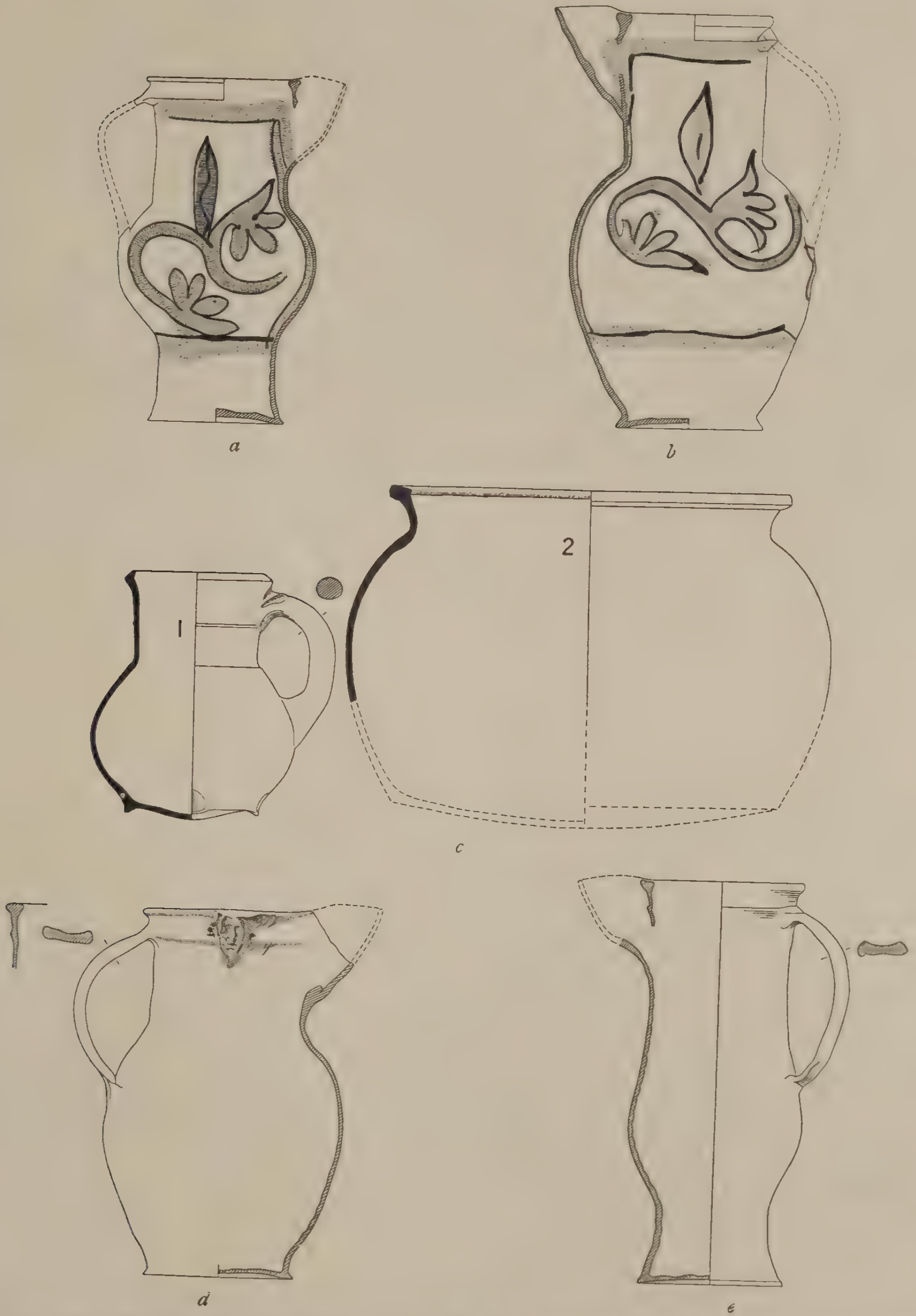

Fig. 14. Polychrome jugs and associated wares. ($\frac{1}{4}$) *a*, Carisbrooke Castle; *b*, King William Street; *c*, King William Street, associated wares; *d*, Society of Antiquaries Collection; e, Rouen Museum.

The later series of jugs are, however, of finer and harder ware, the bases are flat without the thumb marks, and the rim is flat on the top.

Fig. 14, *c*, 2. Fragment of cooking pot with thickened rim of rectangular section bevelled on the inside, and probably with sagging base. Hard, sandy, reddish-brown ware, no glaze. A pot with similar rim-section was found at Rayleigh Castle, Essex (eleventh to thirteenth century).[1]

The tile is a plain floor-tile of red ware with a few spots of green glaze; it is $4\frac{3}{4}$ in. square and 1 in. thick.

Bishopsgate Street (fig. 13, *b*). In the Guildhall Museum.[2]

Complete jug, 11·85 in. high, of unusual pear-shape with cylindrical foot. On each side is a rectangular panel with a series of diagonal lines across the corners, and a ribbed leaf in the middle. Below the handle is a large triple leaf, and a vertical wavy line below the spout.

The jug is illustrated in colours by Rackham and Read, *English Pottery*, p. 14, pl. III.

Sussex Place, Leadenhall Street (pl. XXX, 1). In the Guildhall Museum. A moulded mask, originally applied to the neck of a jug below the rim. The vertical lines representing the hair-fringe, the pupils of the eyes, the nostrils and mouth are painted dark brown, and the face is surrounded by a green band. A very similar mask with the same 'pinched' expression, is attached to the neck of the Cardiff jug (pl. XXVI).

City of London. In the Victoria and Albert Museum is a small fragment of polychrome ware found in London; the exact provenance is unknown.

CARISBROOKE CASTLE

In the Carisbrooke Castle Museum.

Fig. 14, *a*. Small jug, 8·4 in. high, restored from fragments found in 1930 during excavations carried out by H.M. Office of Works. On each side is a foliage design similar to those on the jugs from Regis House (fig. 14, *b*) and Kidwelly (figs. 6, 7), but with the colours reversed, that is, the stems are painted green and the bud yellow, as on the Exeter jug (fig. 15 and pl. XXIX).

EXETER

In the Historical Museum, Exeter.

Pls. XXIX, XXX and fig. 15. This remarkable vessel was found in South Street, Exeter, in 1899. It has recently been restored in plaster, and the drawing is of the more complete side. The vessel is probably the earliest known medieval puzzle-jug; liquid poured into the vessel passes down the hollow handle into the receptacle below, and is emptied through the neck and head of the animal on the other side.[3] It shares

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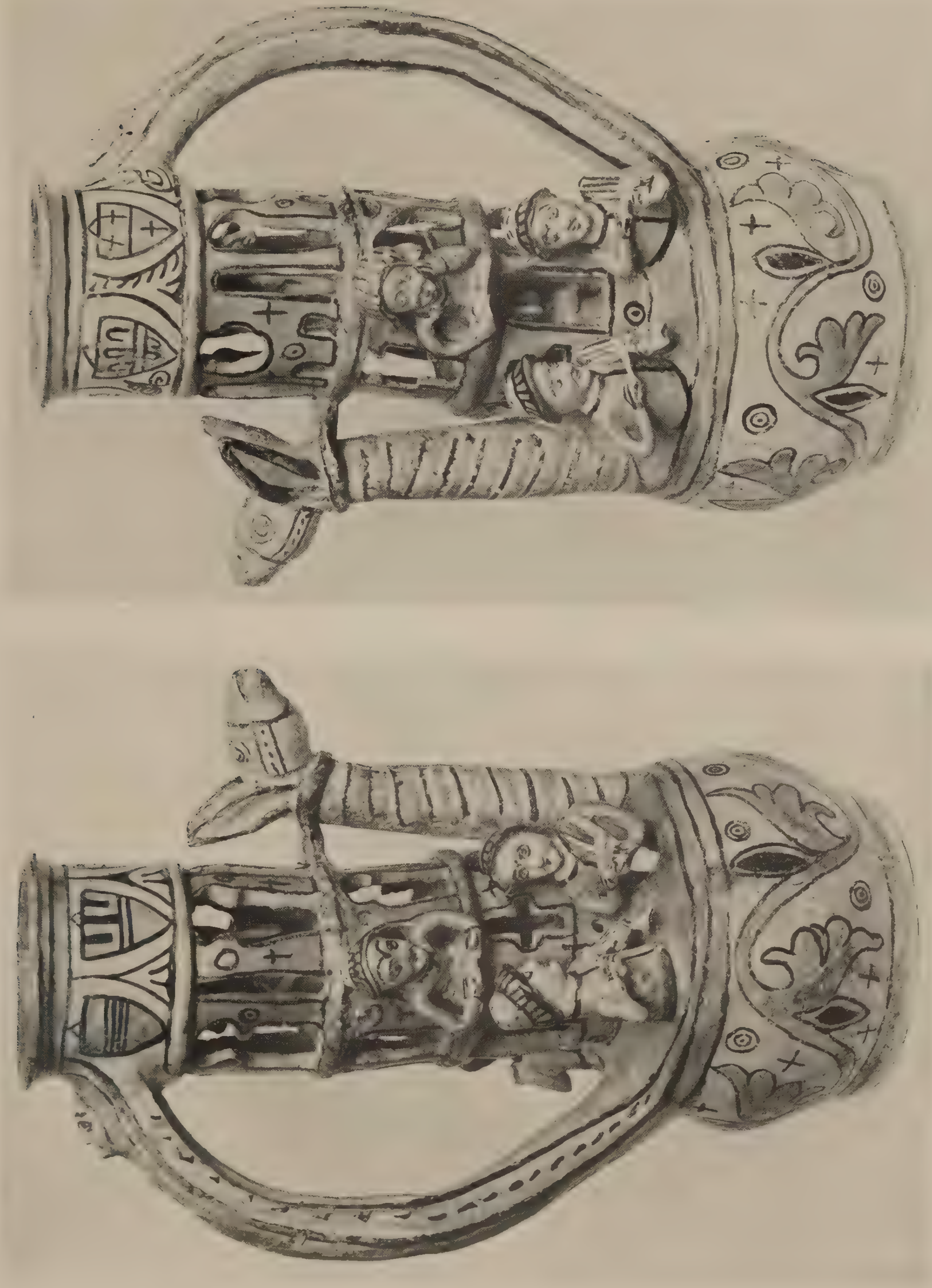
[1] *Trans. Essex Arch. Soc.*, N.S. xii, 181, fig. 7, no. 13.

[2] *Guildhall Museum Catalogue*, p. 177, no. 3, pl. LXVI, 11.

[3] The same arrangement occurs on two puzzle-jugs found on the sites of the Angel Inn and the Town Hall, Oxford (*B.M. Catalogue of English Pottery*, p. 57, B 6. Burlington Fine Arts Club, *Illustrated*



Polychrome jug from Exeter: restored

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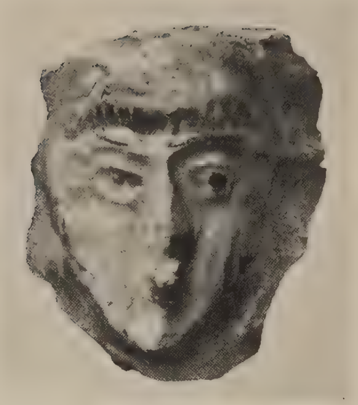
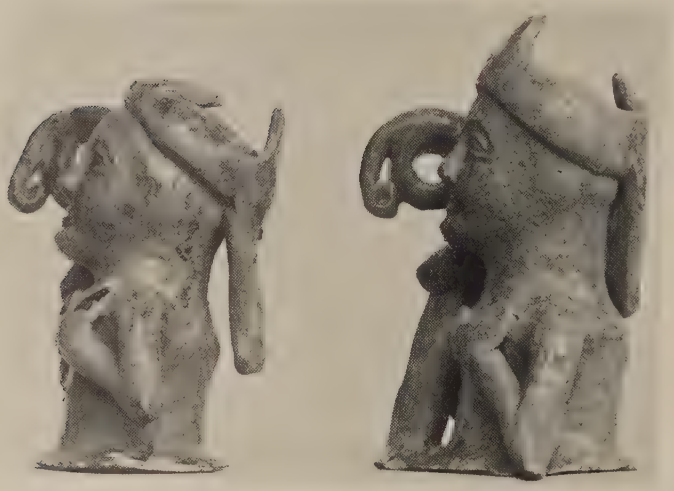
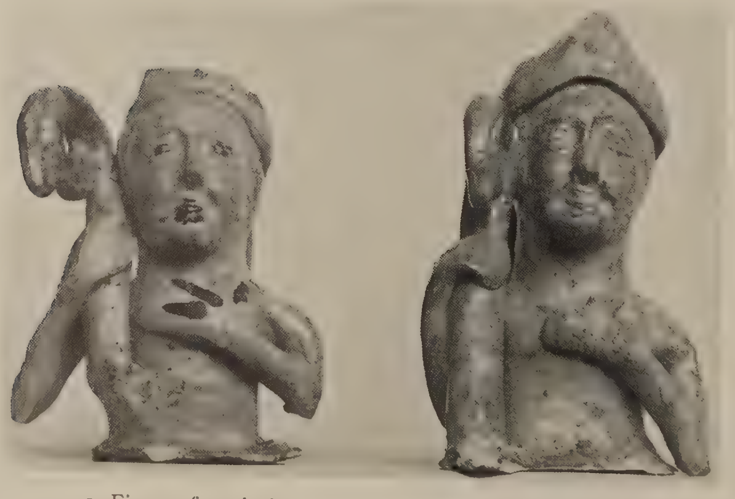


1. Mask from polychrome jug: London ($\frac{1}{1}$)



2. Figures from inside Exeter polychrome jug, side view



3. Figures from inside Exeter polychrome jug, front view

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the use of an animal's head as a spout with a class of equestrian and other animal forms of pottery aquamaniles which date from the late twelfth to about the fourteenth century.[1]

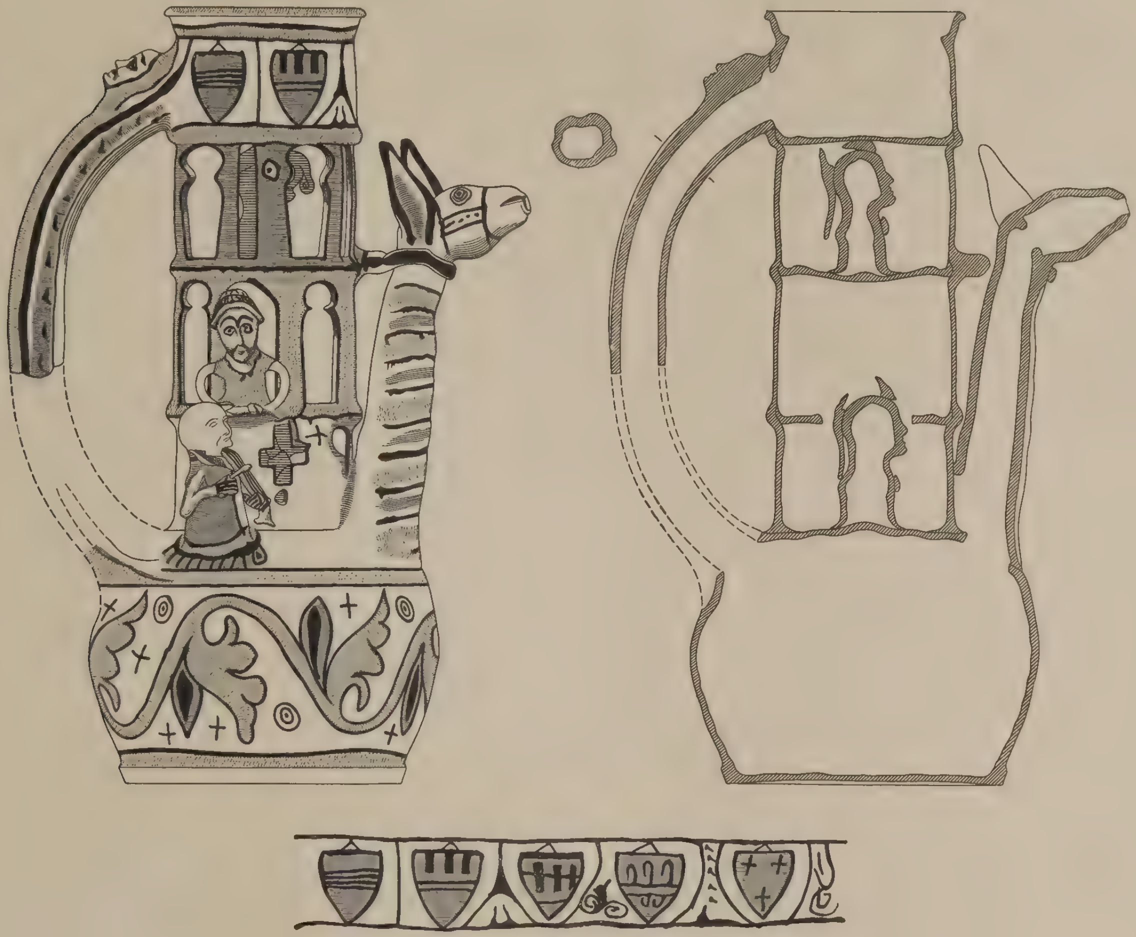

Fig. 15. Polychrome jug from Exeter. (¼)

The body of the vessel is decorated with a continuous scroll, with leaves and a bud springing from alternate sides of the stem, and isolated concentric circles and crosses in

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Catalogue of Early English Earthenware, 1914, p. 6, pl. III, 22). On these jugs a tubular handle communicates with a false bottom which is emptied by a spout in the form of a stag's head. The upper part of the vessel is emptied by a separate spout on the other side, in the form of a human bust. The jugs are green-glazed, and probably date from the early fourteenth century. In form and the use of human and animal figures, these jugs appear to be local copies of the Exeter jug or a very similar prototype.

[1] List in *Archaeological Journal*, lix. 6. The pottery aquamaniles were clay models of the fine metal ewers in use at the same period, see *Antiquaries Journal*, xii, 446 ff.

the spaces. The scroll is admirably fitted into the space available between the green bands above and below it.

The neck of the pot is false, that is, there is no passage through it into the lower part of the pot; it is in the form of a three-storied house or castle, built up in four sections with floors added separately. The windows are of four kinds: trefoil-headed with rounded or pointed cusps, oblong slit, cruciform, and small circular; the forms of the windows are compatible with an early fourteenth-century date. The top story is entirely painted green on the inside, and round the outside is decorated with five conventional shields. The next story is occupied by the figure of a bishop modelled in the round. The bishop is wearing a mitre, holds a crozier in his right hand, and his left hand is flat against his chest. The eyes, mouth, and fingers are indicated in dark brown (pl. xxx, 2, 3). Figures of women lean out from opposite windows of the first story. On one side the woman wears a flat hat and rests with her hands on the window-sill, listening to a man below playing a violin[1] (fig. 15). The woman on the other side is wearing a cap with side-flaps and a short liripipe, and has her right hand and left elbow on the window-sill, supporting her head in the left hand (pl. xxix); the lower figure is missing.[2] Inside the lowest part of the neck is another bishop with crozier, similar to the figure above, but the face is not painted (pl. xxx, 2, 3).

The tubular handle is painted with green and yellow bands and dark brown stripes and rows of dots. At the junction of the handle with the rim is an applied mask, with the eyebrows, pupils, and lips indicated in dark brown. The lower half of the handle is missing, but apparently it had the usual triple leaf at its base.

The spout is held to the neck of the pot by a loop of clay. The neck of the animal, probably a horse, is striped with green and yellow bands and brown lines. The prominent ears are outlined in brown, and a bridle is painted on the head.

The Exeter jug is exceptional in the polychrome class, and is clearly the *tour de force* of a potter with absolute command of his material. It was probably a specially made vessel, to be presented by the potter to his master as a kind of tribute. It was customary in feudal times for the potter to offer periodically a special piece of work to his overlord, as shown, for instance, by the oath of the potters of Plénée-Jugon[3]: 'Outre, chacun desdits potiers doit, le premier jour de chaque année, aller trouver ledit seigneur à Villeneuve, et, pour étrennes, lui présenter un chef d'œuvre de leur main et métier, à peine de quinze sous d'amende. Doivent en outre, sur tous les vases qu'ils font, excédant le prix de trois sous, mettre les armes du seigneur, à peine de quinze sous.'

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[1] A similar violin is being played by a figure on horse-back in pottery, found in the fort of Sainte-Marie-les-Anvers, in the Cinquantenaire Museum at Brussels, *Bulletin Monumental*, lxxiii, 63, fig. 27.

[2] On the restored vessel, two fiddlers have been added on this side, modelled on the one remaining figure. There is an indication of a second figure on the other side, but it is not certain that the four figures were identical, or all playing the same instrument.

[3] F. Jännicke, *Grundriss der Keramik*, 1879, i. 226. See also M. L. Solon, *The Ancient Art Stoneware of the Low Countries and Germany*, i. 67.

KIRKCUDBRIGHT CASTLE

In the Stewartry Museum, Kirkcudbright.

Small fragment found in the Edwardian castle at Castledykes. It shows two dark brown lines, and green and orange-coloured paint. There is also a separate spout of characteristic shape with a green band. Mr. A. O. Curle recognized the fragments as similar in ware and decoration to the Bishopsgate Street jug, and published a description in *Proc. Soc. Ant. Scotland*, xlviii, 391.

Although not strictly included in the group under discussion, two other vessels are illustrated in fig. 14 as probably being undecorated varieties of the polychrome type. The first pot (fig. 14, *d*) is in the collection of the Society of Antiquaries. Nothing is known of its history, and there is no mention of it in the catalogue of the Society's collection published in 1847; it is more likely to have been found in London than elsewhere. The jug is 9 in. high and made of fine hard thin whitish ware, scarcely inferior in technique to the polychromes. The entire inside surface and the outside nearly to the base are painted green under a thin lead glaze, more lustrous on the inside. Glaze on the inside of pots appears to be distinctly uncommon as early as the fourteenth century; we may note, however, the glaze inside the top part of the Exeter jug, and certain jugs coated with a white slip and red-painted scroll designs, which may be referred to the late thirteenth century, recently found by Mr. L. A. Vidler in kilns on the site of St. Bartholomew's Hospital at Rye, most of which are glazed inside the neck and some inside the base.[1] Enough of the spout remains on the Society's example to show that it was of the characteristic form, but the part of the rim forming a bridge across the spout was cut off when the clay was soft, and the edges glazed over, a technique also found on small white-coated and spouted jugs at Rye.[2]

The vessel is clearly in the tradition of the polychrome jugs, but lacks their finer characteristics and the workmanship is poorer. The neck passes gradually into the body of the pot, and there is no distinct change in the profile as on the polychromes; the handle too has lost all character and become little more than a loop connecting the rim with the body; the rim and moulding below it are deficient in angularity and precision. The applied mask on each side of the rim is a badly modelled travesty of the delicate masks in this position on the Cardiff jug.

The other jug (fig. 14, *e*) is in the Museum of Antiquities at Rouen. It was found in 1856 in the stone tomb of Guillaume Paré (died in 1379) beneath the high altar of the church of Saint Nicolas de Leure, Havre.[3]

The jug is 9·9 in. high and made of fine well-levigated white ware. The entire surface is painted pale green under a glaze, which has decayed to a brownish tinge in places. The side of the pot is pierced by seven holes in two rows, made after firing. The inner surface is still blackened by the ritual fire lighted at the time of burial, and the pot contains a few pieces of charcoal found inside it. Funerary pots are frequently found in medieval graves in France, and the custom, derived from the Merovingian period, persisted as late as the seventeenth century.[1] The jug was complete when found; unfortunately the spout was damaged by the workmen, but must have been of the form normal on polychrome jugs.

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[1] *Sussex Arch. Coll.*, lxxiv, 51, pl. XIV.

[2] *Ibid.*, pl. XV, 1–2.

[3] *Mémoires de la Société des Antiquaires de Normandie*, xxiv, 6.

In character and technique the pot is remarkably close to the polychrome type, and is clearly a plain example and not an imitation of the form represented by the Aldersgate Street jug. Similar plain forms are to be expected in Britain, and in conclusion mention may be made of the lower part of a jug found on the site of nos. 64–6 Cheapside in 1931, now in the Guildhall Museum (fig. 16); it is of the usual fine white ware, and entirely covered with light green paint under a thin glaze.

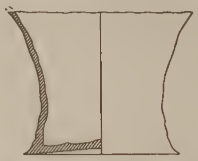

Fig. 16. Base of jug, Cheapside. ($\frac{1}{4}$)

Thanks are due to the following for permission to draw and publish jugs in various museums and for information: Dr. R. E. M. Wheeler, F.S.A., Keeper of the London Museum; Mr. B. Rackham, F.S.A., of the Victoria and Albert Museum; Mr. J. L. Douthwaite and Mr. Q. Waddington, F.S.A., of the Guildhall Museum; Mr. Rudolph Palumbo, of Regis House; Mr. F. R. Rowley, Curator of the Exeter Historical Museum; and M. Maurice Allinne, Curator of the Musée des Antiquités, Rouen.

APPENDIX B

Report on Animal Remains from Kidwelly Castle

By Colin Matheson, M.A., B.Sc.

The animals represented are ox, sheep, (? goat), pig, horse, dog, red and roe deer; there are also about six bones of birds of different species, and two fish vertebrae (one of the cod family, one a salmonid). Among the domestic animals, the cattle remains are by far the most numerous; sheep and pig are represented fairly well, the horse only by one metatarsal and a broken cervical vertebra,[2] the dog by a fragment of lower jaw. The dates within which they fall are I understand 1100 to 1500 A.D., but the great bulk probably come between 1110 and 1320. I have drawn comparisons between them and the remains from Dyserth Castle,[1] because the latter are of roughly corresponding date (mid-thirteenth century), also because I have been able to compare the two sets personally.

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[1] Abbé Cochet in *Archaeologia*, xxxvii, 399 ff. and xxxix, 117 ff.; Cochet in *Bulletin Monumental*, xxii, 329–63, 429–46; Dervieu in *Bulletin Monumental*, lxxiii, 44–74.

[2] Compare the proportions in the following list of domestic stock belonging to early fourteenth-century South Wales noblemen—4 plough oxen, 4 bulls, 8 oxen, 264 cows, 153 steers and heifers, 70 yearlings, 244 sheep, 77 lambs, 114 swine, 15 mares, 6 foals, 188 goats (*Cardiff Records*, iv, p. 61).

Ox. These remains represent animals at various stages of development; some milk teeth are present, and a jaw with the second dentition in course of replacing the milk set. Most of the bones are fragmentary, but two complete metatarsals measure 194 and 199 mm.; and the tooth-rows in two lower jaws each measure 134 mm. The metatarsals are comparable with those from Dyserth Castle, which ranged from 189 to 217 mm. The tooth-rows are slightly longer and the jaws also a little heavier in build. Rather a small type of cattle is suggested.

There are two fairly complete horn cores of a short, thick type. Core A--longest diagonal at base, 58 mm., shortest diagonal, 47 mm., estimated total length *circa* 150 mm.; core B—longest diagonal 44 mm., shortest 33 mm., estimated length 130 mm. There was just a sufficient fragment of skull attached to each to make possible some estimate of the direction of curvature relative to the skull; the horns seem to have curved outward and forward, without much, if any, upward curvature. They are suggestive of the *Bos longifrons* type of horn.

Sheep. There are a number of bones—some of small and probably not fully grown animals—and a few incomplete lower jaws. They all suggest a small slender-limbed animal. Length of one lower tooth-row, 65 mm. Dimensions of three of the largest complete bones—metatarsal, extreme length 123 mm., least circumference 36 mm.; metatarsal, length 115 mm., circumference 32 mm.; metacarpal, length 116 mm., circumference 38 mm. They correspond fairly closely with those from Dyserth Castle and also with those from Romano-British villages quoted by Boyd Dawkins (*Arch. Camb.*, 1902, pp. 174–7).

There is one horn-core, rather a narrow oval in section and suggesting *Ovis aries corneri* of Millais, except that it is more tapered towards the tip (which is broken off) and straighter. Perimeter at base 95 mm.; long diagonal 35·5 mm., short diagonal 23·5 mm.

Pig. There are various teeth and pieces of lower jaw, also part of a large tusk which probably belonged to a wild boar. Possibly there was no clear-cut line between domestic and wild pigs in these times. The wild boar survived in this country till the sixteenth century or later, and domestic pigs were allowed to run more or less wild, so some interbreeding may have occurred.

Horse. The metatarsal is 228 mm. long, and 24·5 mm. wide at the centre of the shaft, suggesting a small slender-limbed breed about 11 hands high. We do not yet know much about the horses found in Wales in early days. There is some little evidence of two types occurring together in south Wales in Roman times. A metacarpal from Caerwent examined recently was 209 mm. long with an index of 6·7, another from Caerleon was 200 mm. long with a closely corresponding index;[2] but Watson found among other Caerleon remains a metacarpal 240 mm. long, index 6·5, indicating a breed 'materially larger than some earlier British horses'. Brickwood (*Encyclopaedia*

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[1] See Dr. Jackson's report in *Arch. Camb.*, 1915, pp. 77–82.

[2] Another from Segontium is 223 mm. long, with an index of 6·9.

Britannica, 13th edition) says that 'after the occupation of the country by the Romans, it appears that the horses of their cavalry were crossed with the native mares, and thus there was infused into the breed new blood, consisting probably of strains from every quarter from which Roman remounts were procured'.[1] We know little of equine history in Wales in Saxon times, but the Normans introduced various new types and were responsible for much improvement. Roger de Bellesme, earl of Shrewsbury, introduced Spanish stallions to his Powysland estate, and that district was long celebrated for its horses. The Welsh also no doubt appropriated horses for crossing purposes when they made successful raids (see *Arch. Camb.*, 1913, pp. 30, 31). In many parts of Wales, however, particularly mountainous and remote districts, the breed commonly found must have, for long after the Norman invasion, been largely of the small Welsh pony type, and indeed as late as the seventeenth century 'Cadoxton by Neath', not so far from Kidwelly, bred 'a vast number of Cattel, Sheep and small horses' (*Arch. Camb.*, 1911, Supplement, p. 70).

The Kidwelly metatarsal (length 228 mm., index 9·3) corresponds closely with the two from Dyserth Castle (length 231 mm., index 9·5), where also, however, one pastern fragment occurred indicating a larger animal.

Dog. The jaw fragment is comparable with that of a greyhound in the National Museum of Wales collections.

Red Deer. A few fragments of limb bones are present.

Roe Deer is represented by one almost complete antler, and possibly by one or two fragmentary bones. Its presence among remains dating at earliest from the twelfth century is interesting, since although it is believed to have been common in Wales in early days, and excavations on Roman and pre-Roman sites have often revealed its remains, we know little regarding its decline and extermination. Its abundance at one time is inferred from a statute of King Hywel Dda (*circa* 940 A.D.) in which its skin is valued only at 1*d*., but definite proof of its distribution either then or later is very scanty. Leland (*circa* 1540) says it was then common in Clun Forest, which is partly in Montgomeryshire. Forrest, in his *Vertebrate Fauna of North Wales* (1907), says it became extinct in that area long ago, 'leaving no traces'.

APPENDIX C

Description of Pots illustrated in Figure 5 (p. 108)

P. 1–9, and 11–19. Rims and basal angles of *cooking pots*, of coarse ill-baked wares, greyish-black to red in colour, unglazed. Found in stratified deposits of a cooking-place, section ii.

P. 10. Upper half of *cooking pot*, of coarse ware, but thinner than the above. Decorated with wavy lines scored in the clay. Found in same deposits.

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[1] Cf. Cossar Ewart's report on the Newstead *Equidae*.

P. 20. Upper half of a *pitcher*. Well-baked, thick and heavy grey ware coated on inside with pink slip and on outside with greenish brown glaze. Incised ornament on flat handle: neck shows ripple cordons. Found at −4 ft. in a trial hole on north side of inner ward (adjacent to section ii). It has a barred spout.

P. 21. Fragments of upper part of a *pitcher*. Well-baked grey ware, thick and heavy, coated on inside with pink slip, on exterior with good yellow-green glaze. Stab ornament on flat handle. Body marked with faint horizontal and vertical lines, underglaze. Fragments found at − 2·6 and − 4 ft. in sections v and vi. A *barred spout* of this ware was found in the same sealed deposits at − 2 ft.

P. 22. Fragments of the base of a vessel (? *pitcher*). The ware and glaze is identical with that of no. 21, and it comes from the same range of sealed deposits (section v, at − 2·4 ft.).

P. 23. Base of vessel (? *pitcher*). The ware is fairly coarse, grey coated on inside with pink slip. The glaze is brownish-green; but the row of applied projections show a purple-black glaze. Found in section ii, layer − 1 to 2 ft. Form characteristic of thirteenth-century wares from our sealed deposits, but purple glaze not noted in such.

P. 24. Barred spout of a vessel (? *pitcher*). Fine white ware. Unstratified. Identical in form, paste, and glaze with a fragment of a spout from sealed deposits (section vi, − 1·9 ft.). Yellow-green glaze flecked with dark patches on exterior only.

P. 25. Rim and handle of a *pitcher*. Well-baked, very thin cream-coloured ware, the same as P. 24 (only 2·5 mm. thick at bulge by handle). Covered externally with greenish-yellow glaze spotted with darker green patches. Section vi. Dark debris, − 1·4 to 1·8 ft.

P. 26. Rim of a vessel (? *pitcher*) with well-marked mouldings. Rich brownish-yellow glaze flecked with green on exterior only. Trial hole, N. side of inner ward − 4·6 ft.

P. 27. Base and part of rim of a vessel (? *pitcher*). Bold and massive mouldings. Well-baked, thick heavy grey ware coated on inside with pink slip, and on outside with thick glossy yellow-green glaze. Sections v and vi, − 2 ft. and − 3·3 ft.

P. 28. *Pitcher*, painted in polychrome: H. 9·8 in. Fine paste of warm cream colour on surface and on section. Thickness 2·4 mm. at bulge. Painted with conventional leaf pattern in green and light brown with dark brown outline, and covered with thin transparent glaze. Barred spout, flattened. The method of making the barred spout is interesting. The vase is turned with rim complete, a hole is then made below the rim, and the spout affixed (this is shown in no. 24).

P. 29. *Pitcher*, green-glazed. H. 9·7 in. Pink or cream-coloured paste, and spotty green glaze. Fine thin ware, 2·5 mm. at bulge. Identical with the fragment no. 25. There is no doubt that it had a barred lip, for a surviving fragment shows the breakout of the curved spout. The vessel is restored in accordance with these indications.

P. 30. *Pitcher*: brown-glazed. H. 10·0 in. Body grey at core, burnt deep red on surfaces. Thickness at bulge 4 mm. Handle stabbed. Covered with a green glaze which looks reddish brown in places owing to the surface colour of the body. Pinched basal angle, slightly sagging base. Flat rim, small lip. Body decorated with bands of horizontal lines, lightly incised.

P. 31 (pl. xxv, 4). *Cooking pot*: H. 9·9 in., D. 12·4 in. Well-baked hard thin ware, pink in colour. Angular outbent rim and slightly sagging base. The vessel was slightly distorted in the kiln. There is a zone of incised parallel lines round the bulge.

VI.—*The Abbot's House at Battle.*

By Sir Harold Brakspear, *K.C.V.O., F.S.A.*

Read 9th March 1933

Hospitality was an important feature of all religious orders and for this purpose there was generally provided accommodation for distinguished visitors, ordinary travellers, and poor people, in all the larger houses. The distinguished guest was the direct responsibility of the superior, and in all the greater Benedictine monasteries he was provided with an independent house for his own lodging and for the entertainment of such guests. Thus at Durham the prior

> did keppe a moste honorable house and verry noble intertaynement being attended upon both with gentlemen and yeomen of the best in the countie, as the honorable service of his house deserved no less: the benevolence thereof with the releefe and almess of the hole covent was alwaies oppen and fre not onely to the poore of the citie of Durham but to all the poore people of the countrie besides.[1]

In early days it would seem that the guests were accommodated in a building, generally arranged along the west side of the cloister, in charge of the cellarer, but under the presidency of the abbot. These early guest-houses consisted of a basement for the use of the guests' servants, and at the end of the range, next the church, was the outer-parlour and entrance to the cloister; above was a great hall, and a chapel over the parlour. The whole establishment was served from the convent kitchen. There were no private apartments for the abbot, as he, by the rule, had to sleep in dorter with his monks.

In the thirteenth century the rule was relaxed, and the abbots were provided with a great-chamber adjoining the former guest-hall; the hall became appropriated to the better sort of traveller and the poorer sort were housed in a separate guest-house. At Bardney, which was a poor house and could not afford any drastic rebuilding, this change is clearly marked.

In the fourteenth century the abbot was provided with still further accommodation and, besides the hall, chapel, and great-chamber, which became state rooms, a new set of private apartments was built for the abbot's daily use. Such added accommodation remains very complete at the Cluniac priory of Castle Acre, and at the great abbey of Westminster the new set of chambers then built still remains.

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[1] *Rites of Durham,* Surt. Soc., 1902, 90.

These abbots' houses varied in size with the wealth of the convent, but in the larger monasteries, where the king himself was often accommodated, they were very large, so that at the suppression those at Peterborough, Chester, and Gloucester became the bishops' palaces without any considerable alterations. Very few of these houses remain in anything like their original state; but many have left considerable remains, and of others there is documentary evidence, so that the accommodation of the houses can be definitely ascertained. They were placed generally on the west side of the cloister, so that the superior could see what took place in the outer court and be readily accessible to his guests. The chief examples of this arrangement were at St. Augustine's Canterbury, Westminster, Chester, Sherborne, Bardney, and Battle. Some abbots' houses, however, were to the east of the claustral buildings, owing to the unusual position of the outer court, as Christ Church Canterbury, Durham, Worcester, and Winchester. At Ely the house was on the south side of the convent.

To understand the arrangements of the abbot's house at Battle some of those houses, which have left remains, may be first considered.

CHESTER. One of the earliest examples of an abbot's house is at Chester (pl. XXXI), where it occupied the normal position on the west side of the cloister, which was here on the north side of the church. Nothing definite remains but the subvault. This contained the outer-parlour of the abbey, next the church, with the abbot's chapel above. To the north is a subvault of four bays with columns down the middle that had the abbot's hall above. Northward again is another subvault of three bays which had the great-chamber above. Opening from the cloister, between these subvaults, is a large vice that led to the hall and the great-chamber. This vice is of the same date as the subvaults and shows that the building was intended from the first as the abbot's house. Other buildings were erected towards the west, but these are so mixed up with later work that they are difficult to understand.

GLOUCESTER. The abbot's house at Gloucester (pl. XXXI) was in the first place on the west side of the cloister, and certain parts of it yet remain incorporated in the Deanery. Whether it had the usual great hall, along the west side of the cloister, is difficult to say as there are no indications of it left. The outer-parlour adjoined the north side of the church, and over it was the abbot's chapel which is almost complete. Northward is a building, partly of the original work, of which the west end is vaulted in two bays, and may possibly have been an open porch as at Battle. The room above was the abbot's great-chamber. There is now a court to the north of this and on the west side of the court are two chambers over a basement. The southern chamber, placed north and south, seems to have been a hall, and the northern the buttery and pantry with bed-chambers above.

Castle Acre. At the Cluniac priory of Castle Acre, the prior's house remains in a very perfect condition (pl. xxxi), and is instructive as showing how the earlier accommodation for guests was converted into the prior's house in later times. It is in the usual position, on the west side of the cloister, and originally consisted of the outer-parlour, next the church, with the prior's chapel above, a subvault of six bays with columns down the middle and the prior's hall above and a large porch on the west side with a room over. The hall was reached by a vice in the north-west angle of the subvault.

In the fourteenth century an addition was made on the west side of the parlour, having a subvault below and the great-chamber above with a projecting garderobe at the north-east corner. The hall seems to have been reduced by having a new chamber built within its north end, but was still used as a hall, as a new staircase for access to it was built at the south end.

In the fifteenth century the porch was lengthened westward with a room above. The house seems to have been supplied from the monastic kitchen until the Suppression.[1]

Westminster. At Westminster the abbot's house (pl. xxxi), now the Deanery, was on the west side of the cloister: it was mostly rebuilt by abbot Litlyngton about 1376, and is described in the grant for the formation of the new see in 1541 as

> all the site and circuit of the mansion-house and dwelling commonly called 'Cheyny-gats' wherein William, late abbot of the late monastery of Westminster, inhabited, together with all buildings, houses, and ground, &c. in which said site or circuit is a certain tower, situate and being at the entrance of the said dwelling, which said tower contains in length, from the east end abutting on the cloister of the said late monastery to the west end abutting upon 'the Elmes', by estimation 67 feet; and in breadth at the west end, from the north side to the south side, by estimation 24 feet 2 in.: and another building and house, with a garden and ground adjoining, containing by estimation from the aforesaid tower to the church of the said late monastery, in width at the east end abutting on the cloister of the said late monastery 124 feet, and in width at the west end abutting towards the house of the poor, called 'the Kyngs Almeshouse', 170 feet; and in length on the north side abutting on the church of the said late monastery and upon the King's street called 'the Brode Sentwarye', 258 feet, and on the south side abutting on 'the Elmes', 239 feet. And also the fourth part of all the great cloister of the said late monastery, with the buildings situate and being above the same, which said fourth part is contiguous and next adjoining to the same mansion-house and dwelling in Westminster aforesaid. . . .[2]

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[1] *Norfolk Archaeology*, xii, 105.

[2] Rot. Pat. 23 H. VIII, *v. Gleanings*, p. 85.

The document does not enumerate the buildings within the specified area.

In the first place the west side of the cloister was occupied by a western range having the usual subvault and guest-hall above, with presumably the outer-parlour next the church with the chapel above. When the new church was built the great buttresses and projecting western tower rendered the outer parlour useless, and it was changed to the south end of the range to be in line with the south walk of the cloister. It had rooms and perhaps the abbot's chapel above, and was the tower mentioned in the grant.

It has generally been considered that when the west alley of the cloister was rebuilt the old cellarium was entirely removed, and that the guests were then accommodated in the new range of buildings to the south. If this was so then Westminster had an abbot's house with less accommodation than even the poor house of Bardney, which seems incredible; therefore it is only reasonable to suppose, as there is no record of building a new hall, that the old cellarium remained with the great hall above.

Abbot Litlyngton built a new set of chambers on the west side of a court, on the west side of the old cellarium, and these still remain with little alteration. They consist of the kitchen at the south-west corner, a new hall to the north and the great-chamber to the north again. Between the great-chamber and the old cellarium was the abbot's bedroom. A gallery was built along the west side of the old cellarium, having an access to the church on the ground floor, and a corbelled-out oratory in the church on the first floor in direct communication with the abbot's bedroom. There were rooms over the west walk of the cloister, but nothing is known of their nature.[1]

BARDNEY. At Bardney the abbot's house (pl. XXXI) has been traced by excavation and was on the west side of the cloister. The abbot's great hall was over a subvault adjoining the cloister and formerly gained by a stair on the outside of the west wall; the chapel was at the north end over the outer parlour. Projecting towards the west, at the north end of the hall, was the abbot's great-chamber over a basement, and beyond this was his bedroom. On the west side of the hall was a small court with a porch of entrance on the west. On the south side of the court was a checker with a bed-chamber above. Southward of this was a long narrow building containing the kitchen and scullery with bed-chambers above.[2] This house was built at various times, but the whole forms a complete building and is an interesting parallel to the abbot's house at Battle.

From these examples it will be seen that the house of the superior of a

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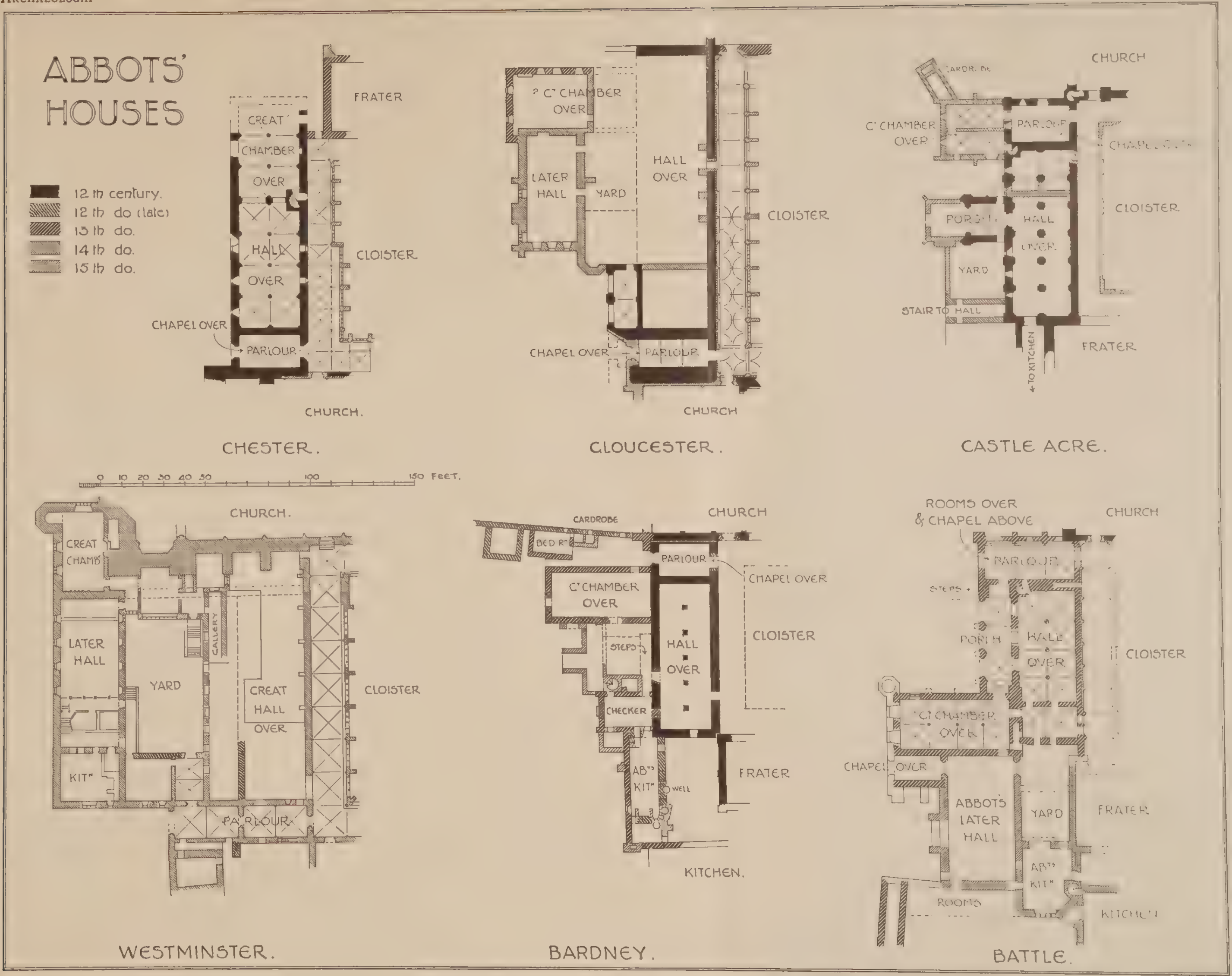
[1] The writer begs to record his indebtedness to the Dean, the Very Reverend W. Foxley Norris, for allowing him to examine every part of the house in his company.

[2] *Arch. Journ.*, lxxix, p. 49.



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large Benedictine establishment consisted of a set of state apartments for the entertainment of superior guests, and a set of privy chambers for the daily use of himself.

In early days the abbot's house was supplied from the monastic kitchen, but in the later examples, at Glastonbury, Worcester, and Gloucester, the abbot's house had an independent kitchen, as also became the case at Westminster, Bardney, and Battle.

The state apartments consisted of a great hall, a great-chamber, a chapel, a buttery, and pantry, upon a basement, in which the abbot's and the guest's servants were lodged. When the abbot was visited by the king, with a large retinue, both the hall and the great-chamber were used for feeding them, as is described at Bardney in 1406.[1] The privy chambers were in all cases later additions and consisted of a hall, pantry and buttery, a solar, and bedrooms.

The abbot's house at Battle (pl. XXXII) was upon the west side of the cloister, and was entirely rebuilt in the middle of the thirteenth century, during the abbacy of the tenth abbot, Ralph of Coventry (1235–61). All the rooms on the ground-floor are vaulted in stone, and the chief rooms were upon the first floor.

A peculiar feature of this work is the lowness of the doorways, some being no more than 4½ ft. to the springing. Another feature is that most of the doorways have semicircular heads, which fashion was common with the Cistercians in the thirteenth century, but is not often met with elsewhere. Sussex is not a county where this order had much influence, so it is suggested that the masons employed at the neighbouring house of Robertsbridge came on from there, to execute this work here, and brought with them, not only the fashion of the round-headed doors but the rigid Cistercian simplicity of the rest of the work.

The house contained the outer-parlour of the abbey, placed east and west next the church, with a chamber above, and the abbot's chapel above that; to the south, against the cloister, a subvault with the abbot's hall above; further to the south a lobby of entrance from the cloister; to the south again presumably the buttery and pantry, with the abbot's bed-chamber above; a subvault, placed east and west, to the west of the cloister lobby, having the abbot's great-chamber above, with a small chapel on the south; and an open passage, or porch, of entrance on the west side of the subvault of the hall.

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[1] Leland, *Collect.* (1774), vi, 300. On the 21 August the king spent the night in the abbot's lodging, at breakfast the day following the king, the princes, and the Scottish nobles sat apart in the abbot's great chamber, the king at a table on the west side of the abbot's bench and his sons at each end, while the Scots were at a table on the north side. The abbot meanwhile entertained the greater part of the company in his hall, sitting at the head of the high table with the bishop of Llandaff.

In the fourteenth century, in the time of abbot Alan of Katling (1324-1351), considerable alterations were made, which included the addition of new rooms over the porch, the removal of the west wall of the abbot's hall and the erection of a timber partition in its place, with new roofs over the added rooms and the hall.

In the fifteenth century a new hall, on the ground level, was built to the south of the older house, with an open court on the east side between it and the west end of the frater. The subvault of the small chapel was formed into a porch of entrance to the new hall. A new wing seems to have been built at the south end of the hall for privy chambers for the abbot, and to the east was a new kitchen, built at the same time, for the use of the abbot's house.

Three months after the Suppression the abbey was granted to Sir Anthony Browne, who a few years later inherited the palatial house of Cowdray, and it is questionable if he ever lived at Battle. The abbot's house was appointed to remain to form a mansion house, and the monastic kitchen seems to have been preserved for the kitchen of this house, owing to the smallness of the abbot's kitchen.

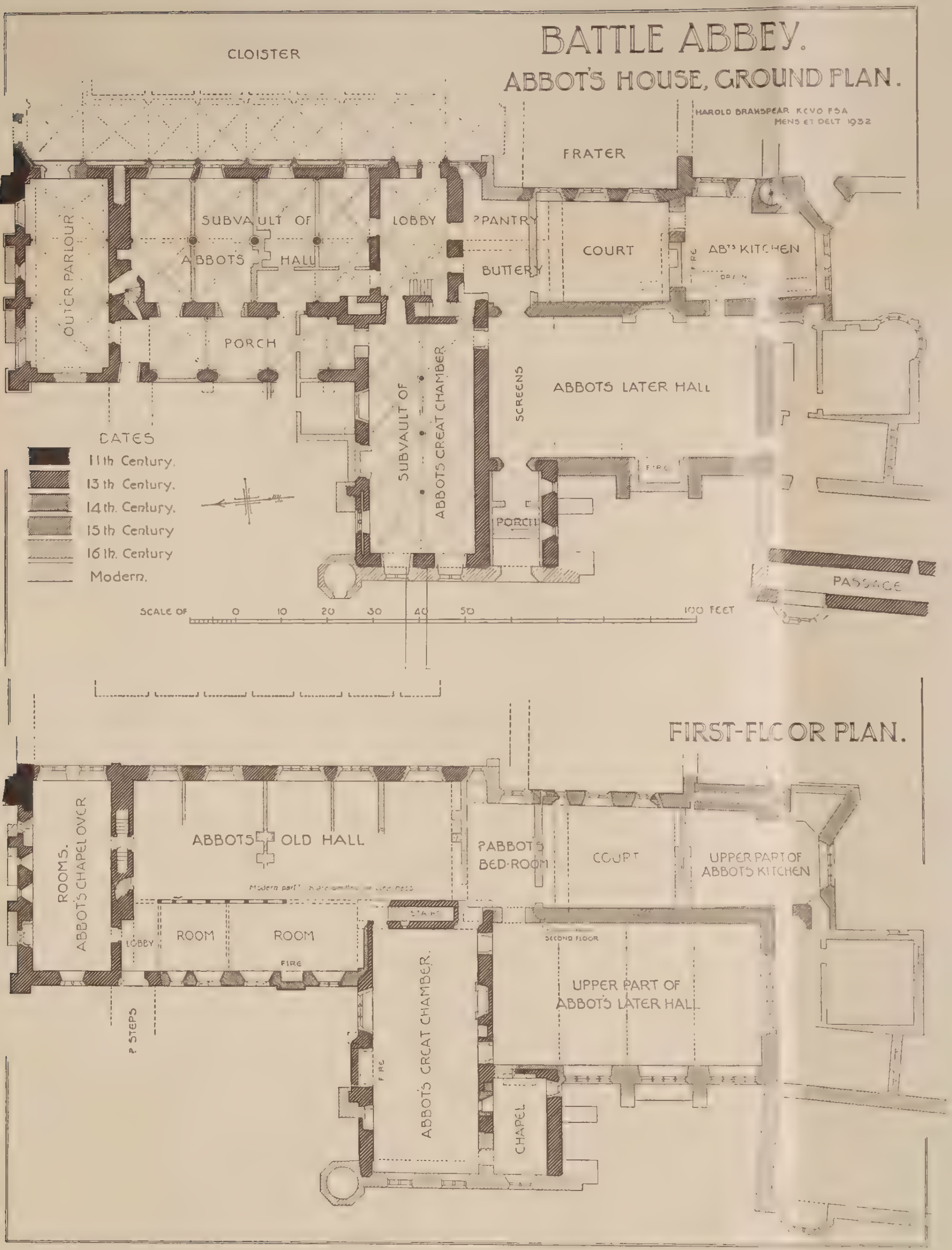
Sir Anthony Browne was one of the executors of the will of King Henry VIII and consequently one of the guardians of the young king. Princess Elizabeth was also under his charge, and with the idea that she should live at Battle he began to build a new wing to the house, on the site of the monastic guest-house, with a second wing connecting this to the south end of the abbot's later hall.

He died before the work was finished and in consequence the princess never came to Battle; but, though the work begun by Sir Anthony is stated to have been completed by his son, the first Viscount Montagu, it is uncertain if it was ever inhabited.

The monastic kitchen was pulled down in 1685, but it is not clear what part of the house was then used for a kitchen.

The last Viscount Montagu succeeded in 1717, and two years later sold the estate to Sir Thomas Webster. The house was admittedly in a decayed condition but nothing now remains to show what work was done by the new owner, though this seems to have consisted in substituting sash windows and an entrance doorway in the place of Sir Anthony's work. Internally a number of rooms were probably refitted. Sir Thomas died in 1750 and was succeeded by his son Sir Whistler Webster, who in spite of his great wealth seems to have neglected the place and pulled down most of Sir Anthony Browne's addition.

Sir Whistler died in 1779 and by will left the abbey to his widow for life and she survived him for 31 years. During this time nothing seems to have



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been done to the house, and it is stated to have admitted the rain to such an extent that the old lady had to go to bed, along the gallery, in pattens.

At her death in 1810 her great-nephew Sir Godfrey Vassal Webster, the fifth baronet, had just attained his majority, and, entering into possession, immediately set to work to put the house into habitable repair.

> 'He put a new timber roof to the hall, refitted the house from top to bottom; made new windows, built a kitchen and scullery, with some other rooms and outhouses adjoining, and three small rooms and a staircase (now pulled down) adjoining the present library. All the carved oak wainscoting and doors in the house and the music gallery and great chimney-piece in the hall, were put in by him, and it is said that the bill he had to pay for woodwork alone amounted to £13,000'.[1]

Though the work that he did may not be of the taste of to-day it is very certain that if he had not put the house into repair it would have become a hopeless ruin.

The expenses entailed in this work, and other amusements, got him into financial difficulties; the house had to be let, the woods cut down, and even the muniments were disposed of to a London bookseller. Sir Godfrey died in 1836 and his widow returned to Battle where she lived until a few years before her death.

In 1857 the abbey was bought by Lord Harry Vane, afterwards the Duke of Cleveland, who built the library and the rooms to the east of it, in a style wholly incongruous with its surroundings. His duchess was the lady who wrote an interesting book on the abbey, from which most of the information of the post-Suppression history has been taken.[1]

On the death of the duke the estate was bought back by Sir Augustus Webster, the seventh baronet, who resided here sometime, but for the last twenty years the house has been let and no building, beyond repairs, has been done.

On the night of the 30th January, 1931, a fire broke out in the room over 'the Beggars' Hall' and destroyed the whole of the house, above the subvaults, except the library and adjoining rooms, the extreme north end of the house, the kitchen, and offices. During the process of reinstatement a great number of interesting features has been brought to light, so that now, in spite of the various remodellings and the fire, the house of Battle shows the arrangements of the house of an abbot of a great Benedictine abbey more clearly than any other example remaining in this country.

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[1] *History of Battle Abbey* (Anon, London, 1877), 219. For brevity this book will be subsequently referred to as *Battle Abbey*.

The Outer-Parlour

The outer-parlour was the main entrance into the cloister of a monastery where the inmates were allowed to interview their friends, and where at Durham and probably also elsewhere 'merchants did utter their wares'. Here it is 41 ft. from east to west by 18 ft. in width; it is vaulted into three bays having moulded ribs, of differing sections, which rest on the side walls upon columns, with moulded capitals and bases, and in the angles upon corbels (pl. xxxiii).

At the west end must have been a doorway of entrance, but no sign of it is now visible. The north and west walls have arched recesses in each bay, and in the recesses of the north wall were single-light windows with pointed-segmental heads, but only the middle one remains. Against the side walls were stone seats, but these have been cut away except under the vaulting columns. At the east end was the doorway to the cloister; the original one was destroyed when the cloister was rebuilt and a new one was made to fit the vaulting. This in turn was destroyed by Sir Godfrey Webster who inserted the present doorway of Coade's stone. In the south wall, in the western bay, are the remains of a doorway which led outwards into the open porch. It consisted of a pointed arch of two hollow-chamfered members and segmental rere-arch. In the middle bay is a small segmental-headed doorway leading to a vice that will be referred to later.

The south wall of the outer-parlour is 5 ft. in thickness, in order to accommodate a straight staircase which started from the cloister and led up to the first-floor level, where there is a square landing, off which is a round-headed doorway to the north and south.

The northern of these doorways leads to a room over the outer-parlour, which had a row of four small lancet windows, with wide internal splays and pointed rere-arches, in the north wall. Of these the first from the east has been destroyed, except for the eastern internal jamb, the second and third are tolerably perfect, and the fourth retains its western internal jamb. What seems to have been the pilaster buttress of the south-west angle of the Norman church, where it impinged on this room, has been chopped away in line with the north wall.[1]

At the east end of the room are now two of Sir Godfrey's wooden gothic windows which replaced two of Sir Thomas Webster's sash-windows, and in the west wall are the remains of a two-light Tudor window. The room was only 7 ft. in height and it seems to have been intended for a sleeping-chamber, possibly divided into cubicles by partitions between the windows.

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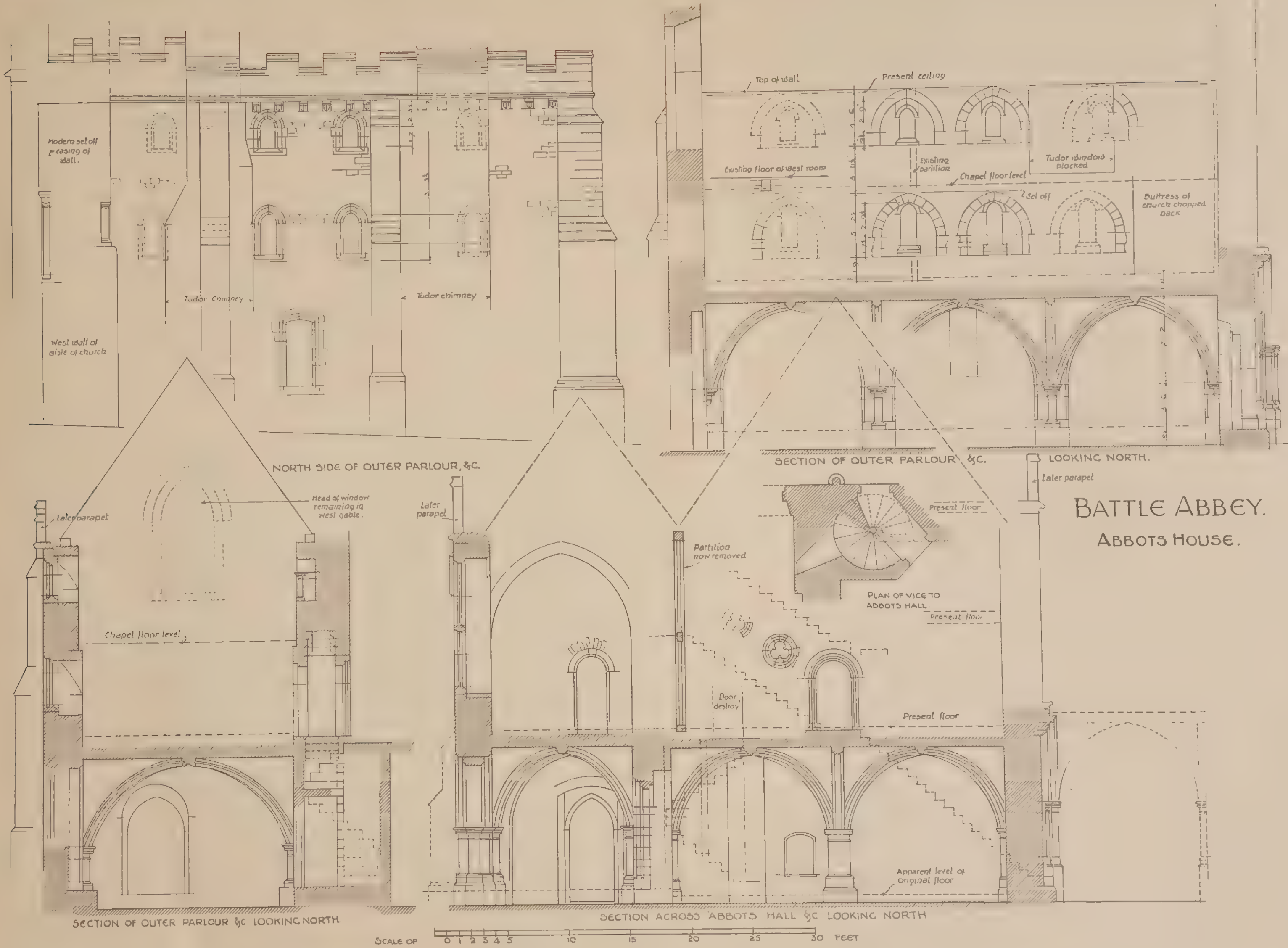
[1] On the other hand this chopped masonry may possibly be the backing of an arch, across the east end of the room, erected in order to support the altar of the chapel above, though there is no indication of a similar block of masonry on the south side.



NORTH SIDE OF OUTER PARLOUR, &C.

SECTION OF OUTER PARLOUR &C. LOOKING NORTH.

PLAN OF VICE TO ABBOTS HALL.

SECTION OF OUTER PARLOUR &C LOOKING NORTH.

SECTION ACROSS ABBOTS HALL &C LOOKING NORTH

BATTLE ABBEY.

ABBOTS HOUSE.

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The Abbot's Chapel

The staircase in the south wall of the outer-parlour continued up to a second-floor, but the upper part of it, and the doorway of access at the top, are gone. In the south wall of the staircase is a trefoiled opening, within a circle, to give light to the stairs, and in it is the original ironwork. Farther up the stairs are the remains of a second and similar opening.

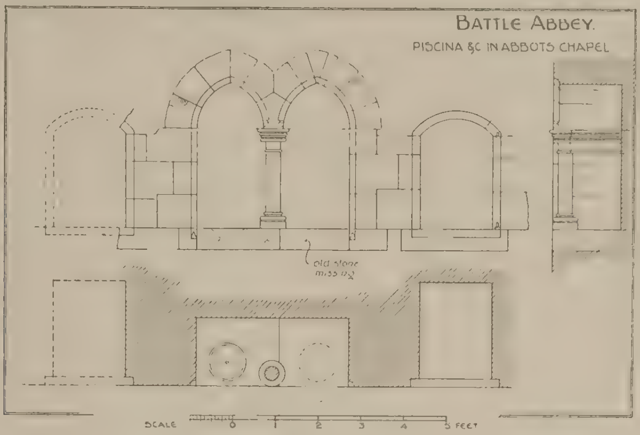

Fig. 1.

The abbot's chapel was on this second floor. It is perfectly normal for this to be above the outer-parlour, but it is unique in having a room between the vaulting of the latter and the floor of the chapel. The floor of the eastern part of the chapel has been removed, but there is a set-off on each of the side walls indicating its position. The floor of the western part has also been removed, but there is a floor, about a foot higher than the original one, under the room now occupying the western part of the chapel. In the south wall is the piscina (fig. 1 and pl. XXXIV, 2), almost perfect; it consists of a pair of pointed arches carried in the middle by a column with moulded capital and base; it had two basins but the western one has been destroyed. On the western side of the piscina is a cupboard 20 in. wide with a segmental head and rebated for a door: a similar cupboard was on the east side of the piscina but of this only the west jamb remains. In the north wall were windows of the same width as those in the room below, but of slightly less height. Of these the internal jambs of the first were found, the second and third windows were complete but there are no definite remains of the fourth.

The chapel is still covered by a roof, placed east and west, apparently of the sixteenth century. In the east gable are now no indications of the original arrangement, but before Sir Godfrey's remodelling there was a lancet in the middle of the gable with a blocked lancet or panel on either side and a circular window in the apex above (pl. XXXIX, 3). In the west gable was a pointed window, originally of two lights, of which the rere-arch and internal jambs remain. In the lower part of this window is a two-light Tudor window, and the gable above was finished at the same time with crowsteps.

Externally the north side of the building (pl. XXXIV, 1) has a buttress opposite the vaulting columns and a clasping buttress at the north-west angle. The wall at the top is finished by a bold corbel-table and is now surmounted by a battlemented parapet. At the north-east angle is the south-west angle of the Conqueror's church. Two chimney-breasts were added to the north wall in the sixteenth century, and the original stone fireplace of the western room under the chapel has been found.

The Subvault of the Abbot's Hall

The abbot's hall of the thirteenth-century house lay to the south of the chapel and was supported upon a subvault (pl. XXXIII). This subvault is 53 ft. from north to south by 27½ ft. in width, and is divided lengthwise into four bays and laterally into two alleys. The vaulting, of which the cross ribs are square with hollow chamfers and the diagonal ribs moulded, is carried in the middle by short round columns, 21 in. in diameter, with moulded capitals and bases, and upon the walls by small semi-octagonal columns, also with moulded capitals and bases, and upon moulded corbels in the angles. Originally this subvault must have been very dark as there could not have been any windows in the east wall, on account of the cloister,[1] and only a borrowed light in the west wall. The building is finished in too elaborate a manner for mere cellarage, and was presumably used for the accommodation of guests' servants.

In the north-west angle is a semi-octagonal projection containing the circular vice that had its entrance from the outer-parlour, and this has a second doorway from the subvault. This vice is of the original work and led up to the hall above, but it had little head-room owing to the wall-stair from the cloister. Its use was apparently to allow guests arriving at the outer parlour to ascend to the hall, and their servants to go directly to their quarters. To the east of the vice is a cupboard 26 in. wide with a segmental head rebated for doors. In the west wall of the third bay is the original entrance, being a doorway 5 ft. in width of two hollow-chamfered members with a pointed-segmental arch. In the south wall of the subvault, in the eastern bay, is a circular-headed doorway to the lobby off the cloister, and in the western bay is an original borrowed light 12 in. in width with double splays and segmental head. This opening

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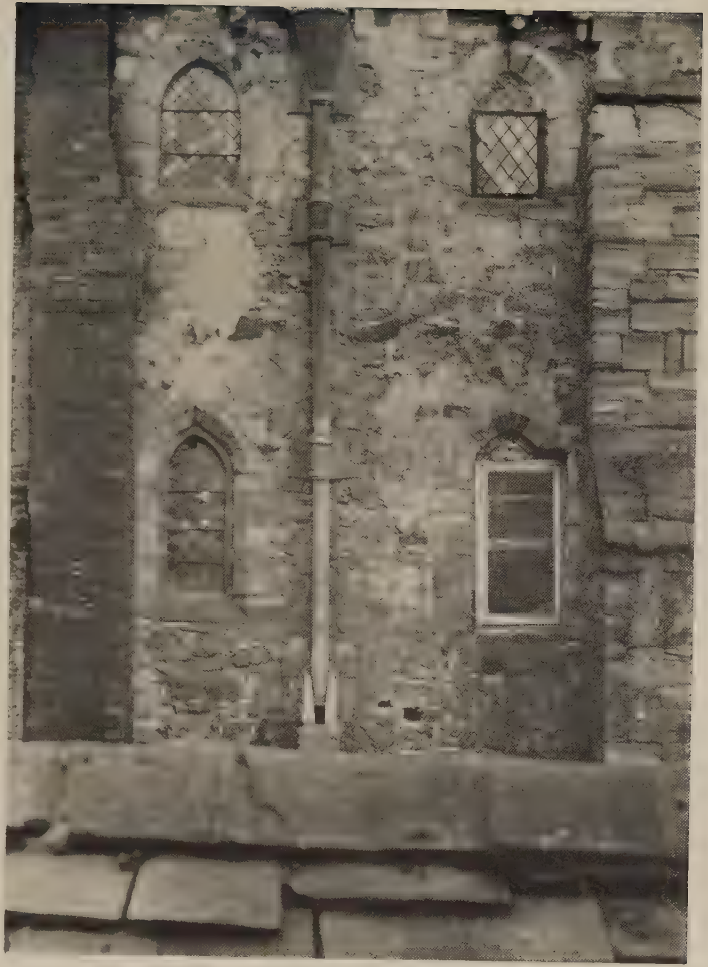
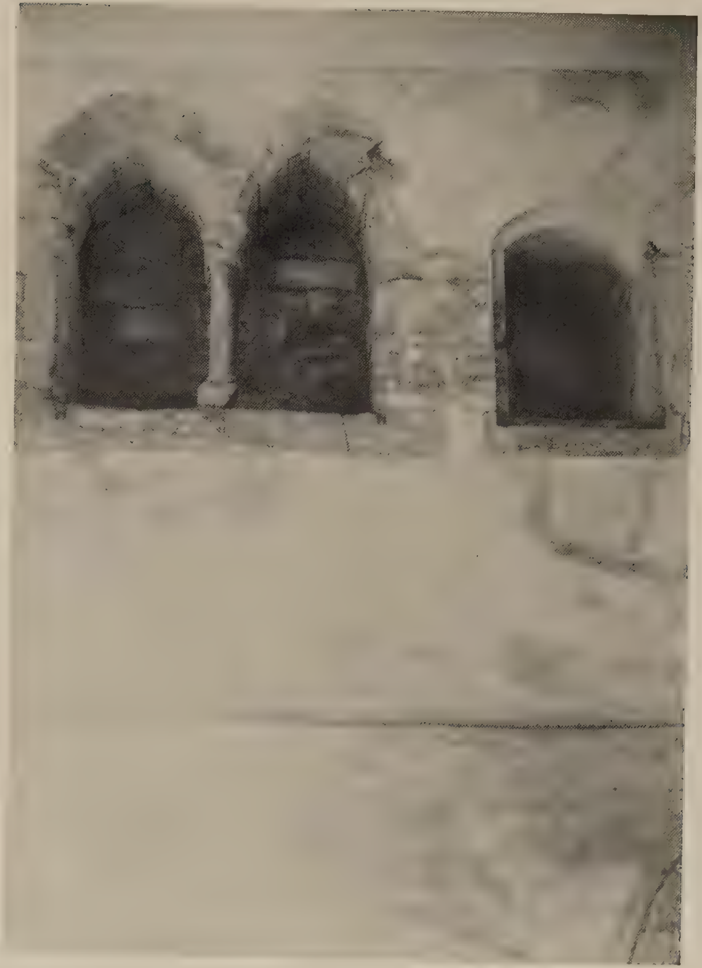
[1] The present openings in the east wall are of Sir Godfrey's time, but take the place of earlier openings of Sir Thomas's work.



1. North windows of abbot's chapel and chambers below



2. Piscina and locker in abbot's chapel. The line below shows the original floor line

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has been partly destroyed by the insertion of a four-centred arch doorway of Tudor date (fig. 2).

The Porch

On the west side of the subvault is an open aisle, or porch, originally only one story in height (pl. xxxv). It is vaulted into three bays, with a narrow bay at the south end. The vaulting ribs are square with hollow-chamfered angles, and rest upon circular wall columns, with moulded capitals and bases, and upon corbels in the angles. In the west wall, in each of the three bays, are open arches, of two chamfered orders, carried upon half-octagonal responds, with moulded capitals and bases similar to the vaulting columns. Externally there seem to have been buttresses between the arches, and the toothing of that at the south end remains. At the north end is a deep arch in line with the vaulting, and within it is the back of the doorway from the outer parlour. In the east wall were apparently borrowed lights in the two northern bays, like that in the cloister lobby, but these have been destroyed by a modern doorway in the first bay, and by a tall four-centred opening, 5½ ft. in width, apparently of the sixteenth century, in the second bay. In the third bay is the large entrance doorway to the subvault of the hall.

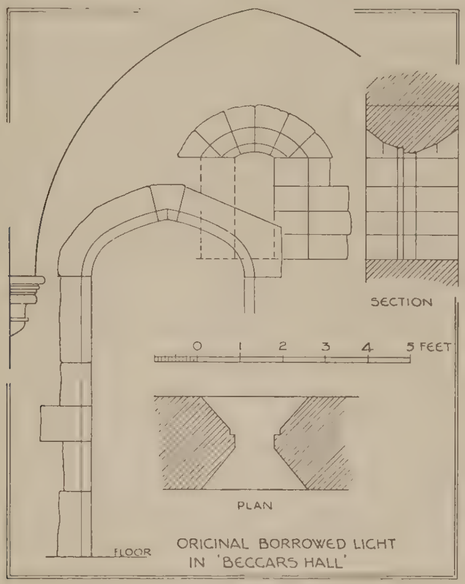

Fig. 2.

At the south end of the porch was a doorway to the subvault of the great-chamber, which is stated by the Duchess of Cleveland to have been then in existence 'but is now condemned'.[1] The condemnation seems to have been complete, for there is no sign of it now remaining.

THE 'BEGGARS' HALL'

The continuation southward of the subvault of the hall is a room 26 ft. from east to west by 14½ ft. wide, that formed an entrance lobby to the abbot's house from the cloister (pl. xxxv). For many years this has been called 'the Beggars' Hall', which certainly was not its purpose in monastic days, though it possibly got its name through doles having been given here to poor folk in Elizabethan days. It is vaulted in two bays with moulded ribs resting on moulded corbels. The vaulting of the western bay is ingeniously arranged with two half-diagonal ribs to the south-west to allow space, high up in the south angle, for a round-headed doorway. Leading up to this doorway is a straight flight of steps against the west wall, which seem to be on the site of older wooden ones. Under the floor and partly under the steps are two Norman capitals that belonged to detached columns, 15½ in. in diameter set upside down to carry wooden newels.

At the north end of the west wall is a round-headed doorway to the subvault of the great-chamber. In the north wall are the doorways from the subvault of the abbot's hall already described. In the east wall is the entrance from the cloister, with a window on the north[2] which was the only light to this lobby. In the south wall are two round-headed doorways, rebated for doors on the inside face of the wall, which show that there were rooms further to the south.

The west wall of the lobby is 6 ft. in thickness to accommodate a wall stair, which is entered from the subvault of the great-chamber: there was another entrance, opposite to this, from the space southward of the cloister lobby, and a third entrance by the doorway in the south-west angle. The stair continues upwards in a straight flight of steps to the floor above, and the walls still retain indications of 'mason' decoration on the plaster. The thick wall continues for 6½ ft. into the subvault of the old hall, and in it is a deep cupboard, with a space to the south, that seems to have contained a cistern for water as there is a notch for the outlet pipe at the back of the cupboard.

THE ABBOT'S HALL

The staircase led up to the abbot's hall though there are now no remains of the door at the top, but immediately in front of the stair a considerable portion of the original tile flooring was found. The abbot's hall possibly extended

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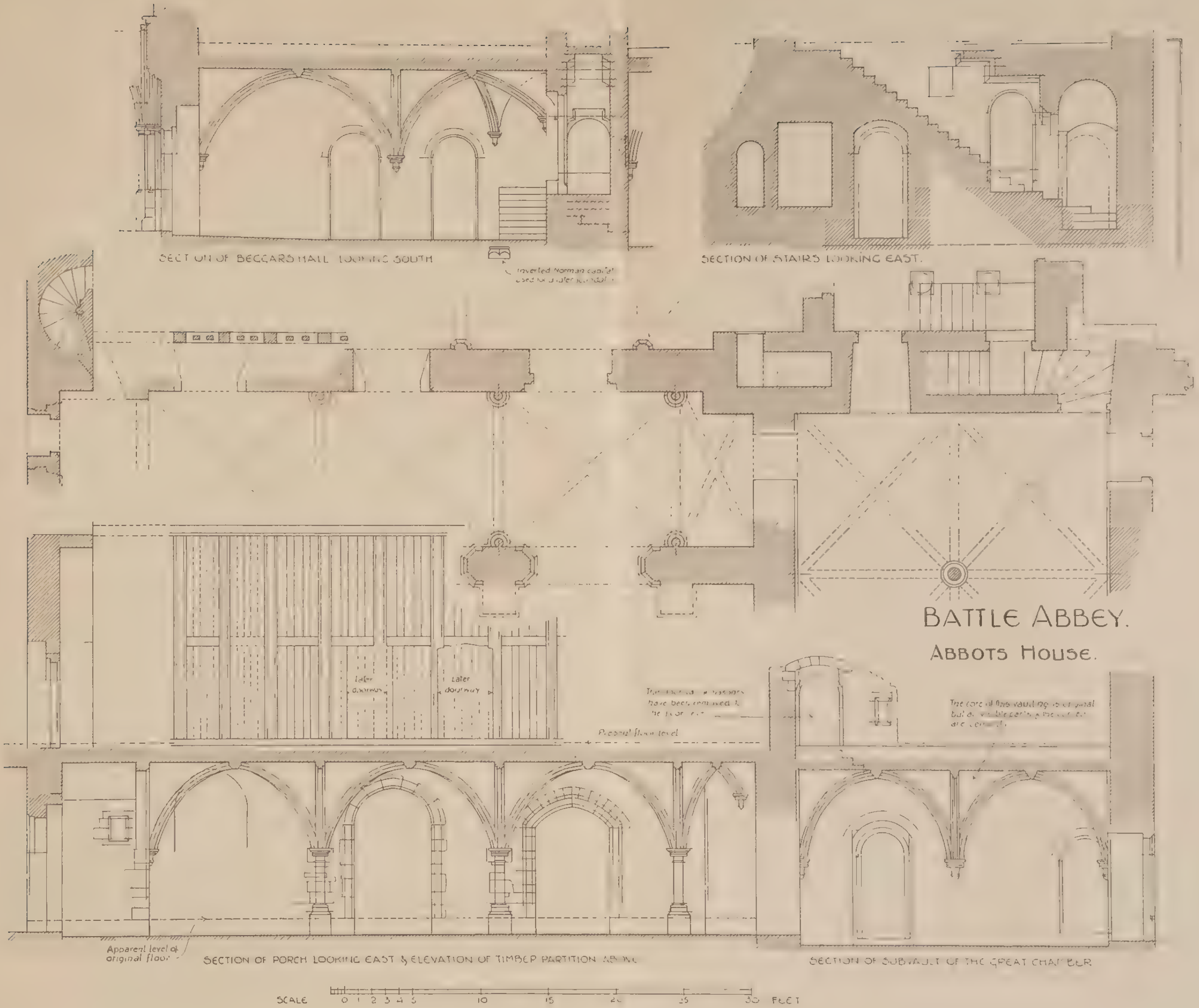
[1] *Battle Abbey*, 276.

[2] For many years, until Sir Godfrey remodelled the house, this was used as the front door.


Inverted Norman capital used for a later pedestal
Later doorway
Later doorway
The [illegible] have been removed to the floor [illegible]
Present floor level
The core of this vaulting is original [illegible] are [illegible]
Apparent level of original floor
SCALE 0 1 2 3 4 5 10 15 20 25 30 FEET

BATTLE ABBEY.

ABBOTS HOUSE.

SECTION OF BEGGARS HALL LOOKING SOUTH

SECTION OF STAIRS LOOKING EAST.

SECTION OF PORCH LOOKING EAST & ELEVATION OF TIMBER PARTITION ABOVE

SECTION OF SUBVAULT OF THE GREAT CHAMBER

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southwards over the cloister lobby, and would have had windows in the east wall over the cloister and in the west wall over the porch. In the middle of the north end is the doorway, from the staircase from the cloister, which has a round-headed arch of two hollow chamfered members; and the iron hooks for the door remain, on the hall side, in front of the inner member (pl. XXXVI, 2).

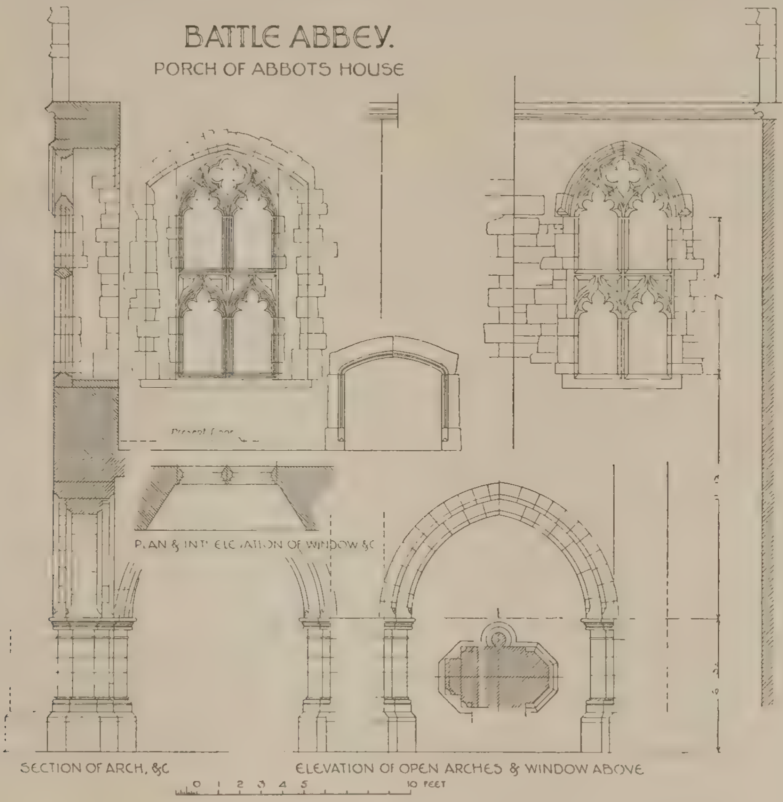

Fig. 3.

In the fourteenth century rooms were added over the porch, the west wall of the old hall was pulled down, and a stout timber partition, erected slightly to the east of the old wall, took its place (pl. XXXV). New roofs must also have been put to the hall and the added rooms, but those which existed before the fire were apparently of the sixteenth and nineteenth century respectively.

The added rooms consisted of a large chamber at the south end, a lesser one to the north, and a lobby next the north wall.

The large chamber was 28 ft. from north to south by 15 ft. wide, and of one storey in height over the subvault. In its west wall were two tall windows with a fireplace between. The southern window remains complete: it is of two lights, with a transom, which have ogee cinquefoiled heads and a quatrefoil at the top under a pointed label (pl. XXXVII, 2). The inside has wide splays with a pointed segmental rere-arch, and a flat stone sill without window seats. Of the northern window only the internal splays and part of the rere-arch remain. The fire-place has a segmental head with a double chamfer, and there is a slightly projecting breast on the outside. In the south-west corner of the room is the jamb, and some of the arch stones of a wide recess that occupied the south wall.

The northern room was about 14 ft. from north to south by 15 ft. wide, and in its west wall were two windows of which the segmental rere-arches remain. The southern window was of the same width as those of the southern chamber, but the northern was only of one light.[1] They are much lower than those of the south room as there was another room above, but there is nothing remaining to show how this upper room was approached.

To the north of this room was a lobby, to be referred to later, that had in its north wall a wide pointed arch, carrying on the line of the north wall of the hall, and beneath it is a round-headed doorway, of a single member, that led to the chamber under the abbot's chapel (pl. XXXIII).

The partition between the hall and the rooms over the porch was formed of upright chamfered posts 11 in. by 9 in., about 3 ft. apart, with a transom at half height and two upright studs in each division (pl. XXXV). The partition had been removed for a distance of 5 ft. at the north end, and from this point for a length of 28 ft. it was not destroyed by the fire, but in this were no original openings.[2] In the east wall are now no signs of any of the original openings, as the wall seems for the most part to have been rebuilt by Sir Godfrey, who cemented the outside, put in two rows of his gothic widows[3] and added the present battlemented parapet.

At the Suppression the old hall was divided up into two stories with attics in the roof. The medieval windows in the east wall of the hall seem only to have been reformed, and little windows added above them to light the second floor, with dormers above these in the roof. The lower windows in turn were converted into sashes by Sir Thomas Webster, and between these were indications of what seem to have been flat buttresses (pl. XXXIX, 3).

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[1] This window was blocked in Tudor times by a stone fireplace which had a drying closet at the side: as the fire was not required in this position it has been refixed in the eastern room in the great-chamber.

[2] As the partition was supported upon the vaulting, and had to carry two floors and the roofs above, it was considered wiser, in the reconstruction after the fire, to build a brick wall in its place upon the solid wall below, and the remains of the partition are now refixed as a division between the two rooms that occupy what was the abbot's great-chamber.

[3] Of these windows the two northern ones remain to both floors, but as the rest were burnt they have been replaced by square-headed stone windows with mullions.

It is quite certain that the service stair in the west wall of the 'Beggars' Hall' was not the main entrance to the hall. Such an entrance is not obvious, but it would appear to have been by an outside stair, and the only place where such could have been was on the west side of the house, presumably against a wall that must have existed in line with the south side of the outer-parlour. At the head of such a stair were remains of the relieving arch over a pointed opening of the thirteenth century, beneath which was certainly the doorway of entrance to the hall (pl. XXXVII, 1). This entrance remained after the fourteenth-century rooms were added over the porch, as evidenced by the northern of the two windows in the northern room being only of one light, as the staircase prevented it being similar to the southern window.

Over the entrance doorway were indications of a gable roof, which at first sight suggest a covering to the stairs, but were actually remains of a roof over a building that formerly existed, built apparently by Sir Anthony Browne (pl. XXXIX, 1). Inside the doorway must have been a lobby, over the porch below, and it has been shown that the fourteenth-century partition on the west side of the hall stopped short of the north end, which allows the space for a doorway into the hall.

The Buttery and Pantry

Those indispensable adjuncts of a medieval house, the buttery and pantry, are not evident, but the two doorways side by side in the cloister lobby suggest that they led to such rooms to the south. From the pantry a pentise must have led to the monastic kitchen, which seems to have served the abbot's hall until the fifteenth century.

Over the buttery and pantry was presumably the abbot's bed-chamber, approached from the great-chamber, and on the east side of it was probably a garderobe. In the fifteenth century another room was added above which will be referred to later.

The Subvault of the Great Chamber

The subvault beneath the abbot's great chamber is 50 ft. from east to west by 23 ft. in width; it is divided into four bays in length, and two alleys in width. The vaulting has moulded ribs supported down the middle by Purbeck marble columns, with moulded capitals and bases, and upon the walls by moulded corbels.

It is stated that

> it had two windows looking north (still to be seen on the outer side): the fireplace occupies the space of one, and the other was in the wall beyond it. The present north window is modern, and the two others to the west were then doors, leading to some

> room that is now destroyed. At the opposite or east end, two more doors led to the so called Beggars' Hall; while yet another (that still remains on the north side, but is now condemned) opened on a great hall that has been divided into offices.[1]

It is not clear how the Duchess of Cleveland, who wrote this, got her information, especially that the west windows were formerly doors; she is perfectly correct about the blocked window on the north, but it is not evident how she knew that there was a second window behind the fireplace. She goes on to state

> unfortunately it [the room] had since been 'done up' by Sir Godfrey, who . . . converted it into a drawing room. Bosses were added to the vaulting, corbel-rests to the arches, and new capitals to the pillars, while the pillars themselves (no doubt like all the rest, of Purbeck marble) were thickly coated with cement . . . when I saw it for the first time, painted one indiscriminate drab, the bosses and capitals picked out in scarlet and gold, with an ugly gas-burner hanging from each of the former. I thought it sadly gloomy and uninviting.[2]

The duchess then set about to redecorate the room and complains of the difficulty of doing so:

> For the vaulting, the gold stars on a blue ground were obvious and usual enough; but how were we to treat the walls? If we painted them in diaper they gave the impression of blocked-up arches; if we covered them with mirrors, the light was absorbed, and the groining and pillars, multiplied indefinitely by reflection, suggesting vaulted cellarage; if . . . we made them all white and gold, we ran the risk of modernizing them into vulgarity . . .[3]

In the westermost bay of the north wall the remains of the original window, mentioned by the duchess, have been found; the stonework has been repaired and the window opened up (pl. XXXVI, I). This is of two lights with a quatrefoil in the head, under a containing arch, and the lights are rebated for shutters. A peculiar feature in connexion with this window is that there are drawbar holes in each jamb. These are not directly opposite each other and each is sufficiently deep to accommodate a bar of the full width of the window. Each light had originally two stanchions and five saddle-bars, and the inside splays yet retain their plaster with 'mason' decoration (fig. 4).

In the third bay is a modern fireplace, and in the second bay was one of Sir Godfrey's wooden gothic windows.[4] In the first bay is a modern doorway from the porch, which evidently takes the place of the original doorway mentioned by the duchess.

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[1] *Battle Abbey*, 276.

[2] *Ibid.*, 276.

[3] *Ibid.* The decorations of the room were injured at the time of the fire by water coming through the vaulting, the cementing of all the original stonework has so injured it that it cannot be opened out, so to do away with the Victorian embellishments the whole room has been painted white except the oak dado.

[4] This was so infected with dry rot that it had to be removed and is now replaced with a stone window designed to admit as much light as possible.

In the east wall, in the north bay, is the back of the doorway from the cloister lobby, and in the south-east corner is the entrance to the stairs to the abbot's hall, which is round-headed with a rebate for the door on the inside. No original features show in the south wall.

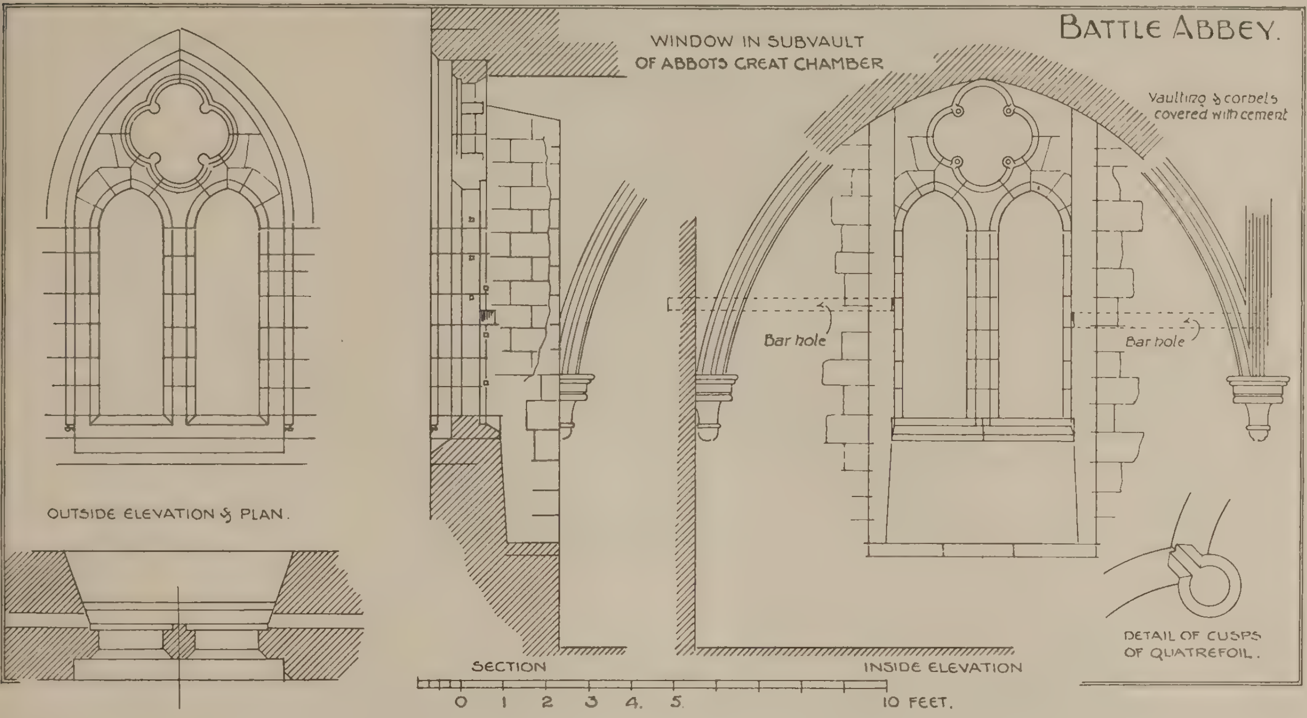
BATTLE ABBEY.
WINDOW IN SUBVAULT OF ABBOTS GREAT CHAMBER
Vaulting & corbels covered with cement
Bar hole
Bar hole
OUTSIDE ELEVATION & PLAN.
SECTION
INSIDE ELEVATION
DETAIL OF CUSPS OF QUATREFOIL.
0 1 2 3 4 5 10 FEET.

Fig. 4.

The west wall of the subvault is now 6 ft. in thickness, but only the inner half is original. From the middle of this wall a foundation runs out westward some 19 ft., and then turns southward, to support a projecting building that probably contained a garderobe on both floors.

Sir Anthony Browne destroyed this projecting building together with the west walls of the great chamber and the chapel, which will be described later, and he built a new wall outside the line of the subvault with an octagonal turret at the north-west corner. In this wall were two three-light transomed windows to the subvault, and an entrance doorway beneath the chapel; to the floor above were three windows, and the wall was finished with a battlemented parapet. Behind this he built a new gable, with a three-light window and finished with crowsteps.

Sir Thomas Webster converted the upper windows into sashes, but left the rest of the work, except that he made a new entrance doorway with a round head, flanked by columns and surmounted by an entablature and pediment (pl. XXXIX, 2).

The finish of this subvault is more elaborate than the subvault under the abbot's hall and was certainly not cellarage, therefore its original use was probably for the accommodation of the abbot's servants.

The Great-Chamber

Over the subvault just described was the abbot's great-chamber, but none of the original windows remain. The room was entered at the east by a round-headed doorway at the top of the stairs, which was so low that the arch had been cut away to give head room,[1] and to the south of this was part of a square-headed loop to light the staircase. In the south end of the north wall was presumably a similar doorway to the abbot's bedroom.

In the south wall, near the west end, is an inserted Tudor doorway, and to the east of this is the eastern jamb of a thirteenth-century doorway, which led to the little chapel on the south. Farther to the east is a window, to enable the altar of the chapel to be seen from the great chamber; it is of a single light, 24 in. in width, with an ogee-cinquefoiled head. In it is the original ironwork of two stanchions and three saddle-bars (fig. 5). Still farther to the east was found an original cupboard 2½ ft. wide with a segmental head and rebated for doors, for which the hooks remain. There was an original fireplace in the north wall, with a relieving arch above, but it had been destroyed by later alterations. Outside there is a slightly projecting chimney-breast which is carried by a pointed-segmental arch resting on corbels.

The walls of the chamber are 14 ft. in height, and still mostly retain, though in a battered condition, their fourteenth-century plastering painted over with red 'mason' decoration and finished at the top with a painted frieze, 9 in. in depth, of a running floral pattern (pl. XXXVIII, 2).

Over part of this room, before the fire, was a simple fourteenth-century roof, having tie-beams supporting king-posts from which were curved braces to the principal rafters, and a centre bearer under the collars. Unfortunately no drawing was made of this before it was burnt.

On the south side of the western part of the great chamber was a small chapel, gained by the doorway already mentioned. Its original length is uncertain, but it is 12 ft. wide and was covered by an open timber roof. The east end and gable remain embedded in the wall of the later hall, and in the

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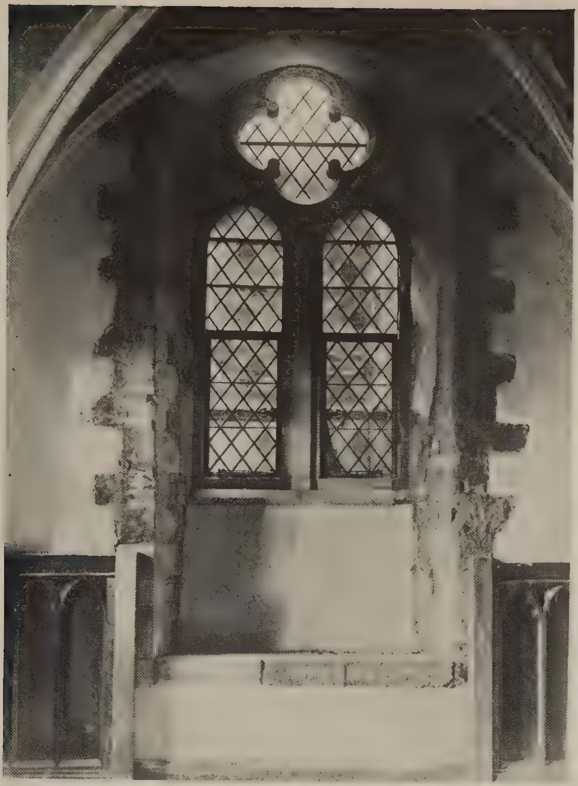
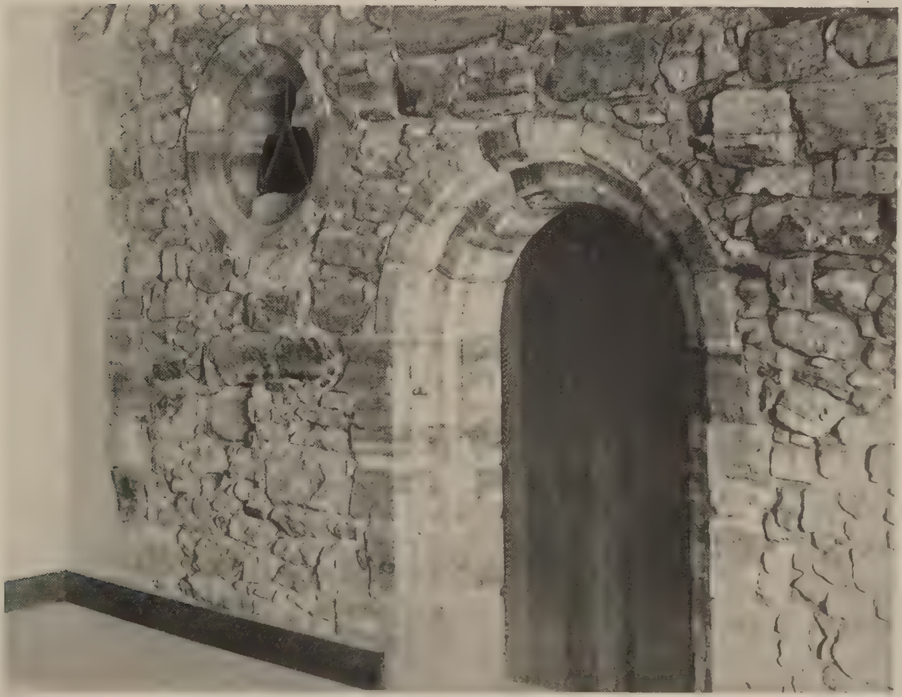
[1] Though this doorway and the small bit of the wall on each side survived the fire, it had to be removed as being unsafe. It is shown on plate XXXV.



1. Window in subvault of abbot's great-chamber



2. Doorway north end of original hall and light to staircase

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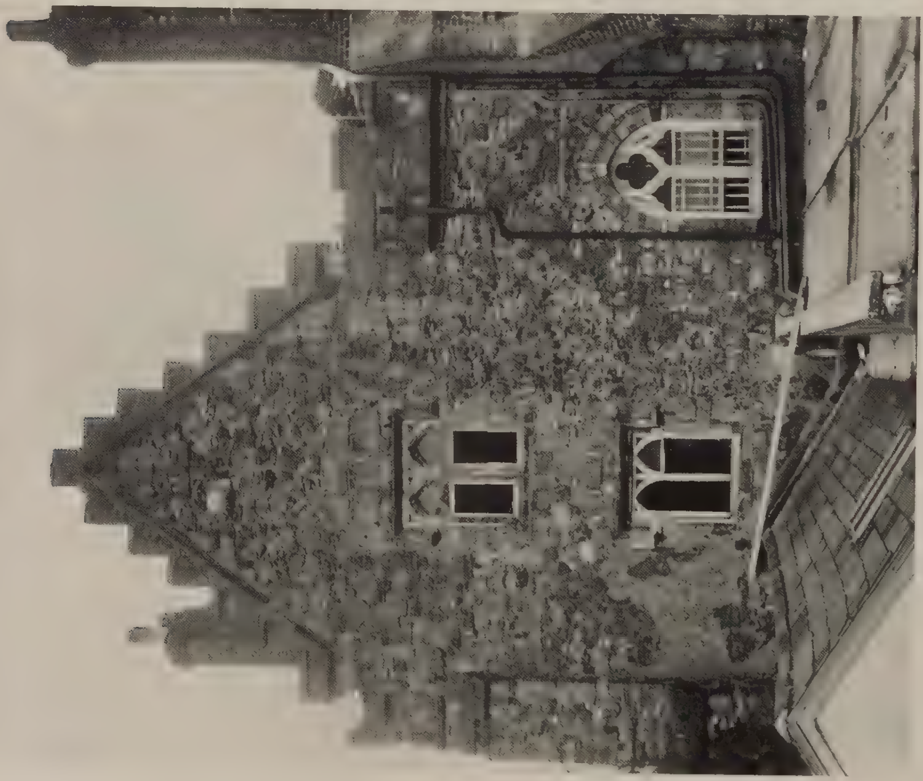
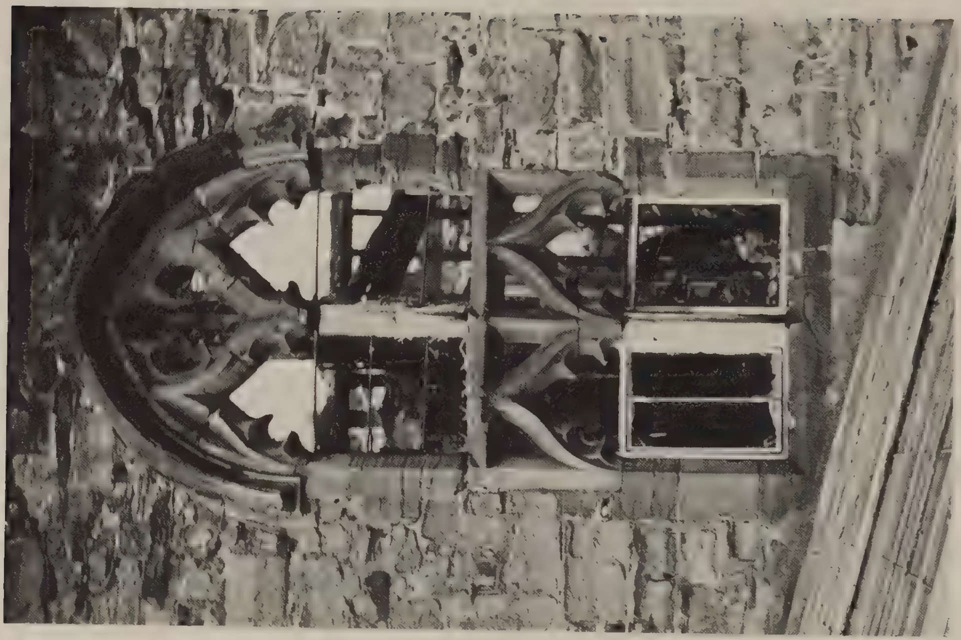


1. West end of abbot's chapel and remains of entrance doorway



2. Window of chamber over the original porch

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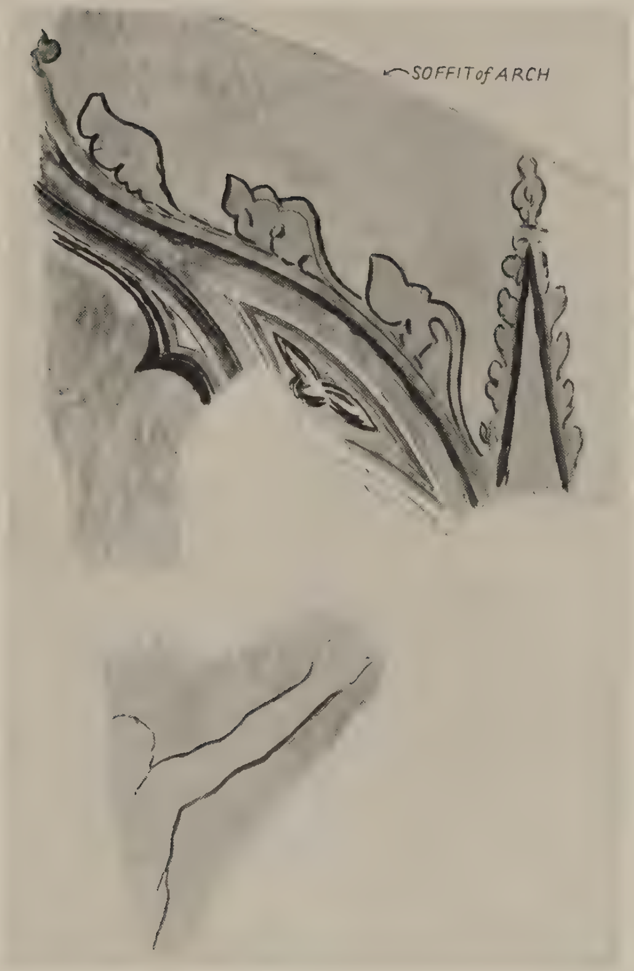
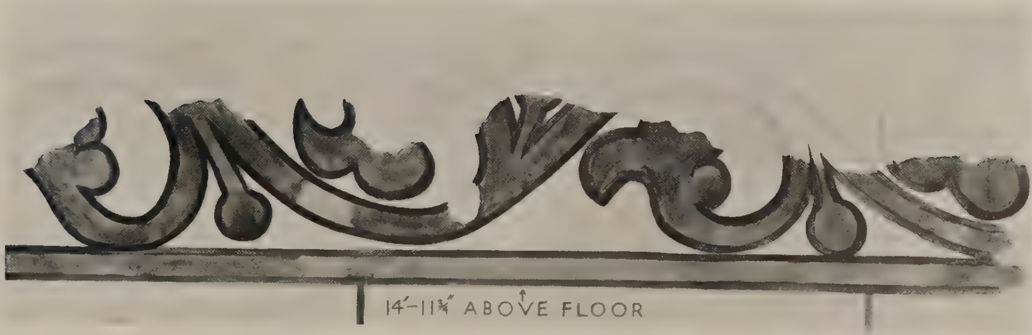


1. Small chapel, painting at back of altar



2. Abbot's great-chamber, painted frieze

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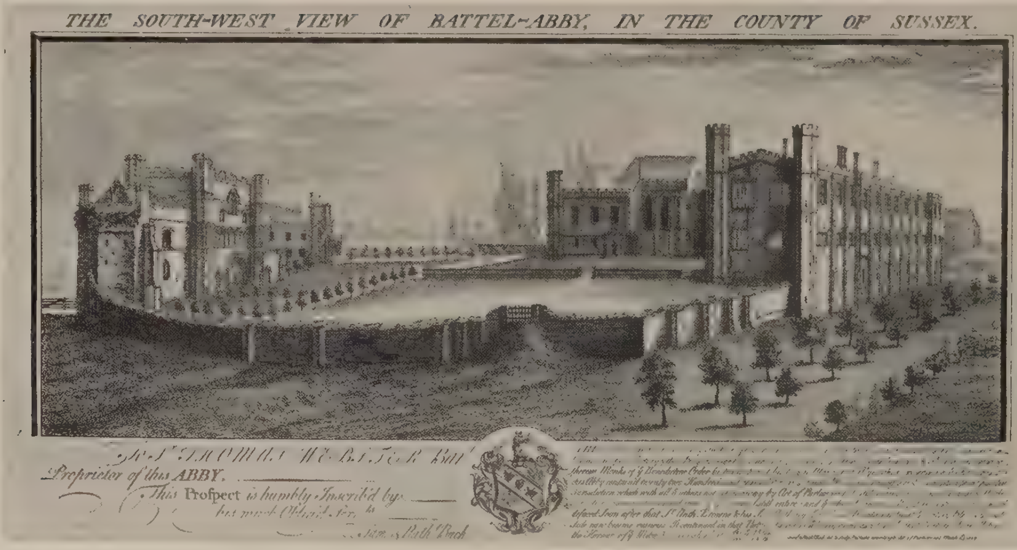
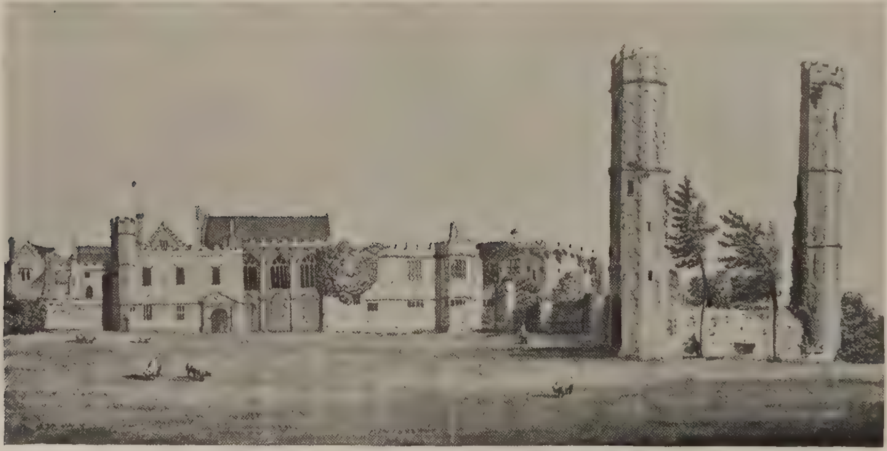
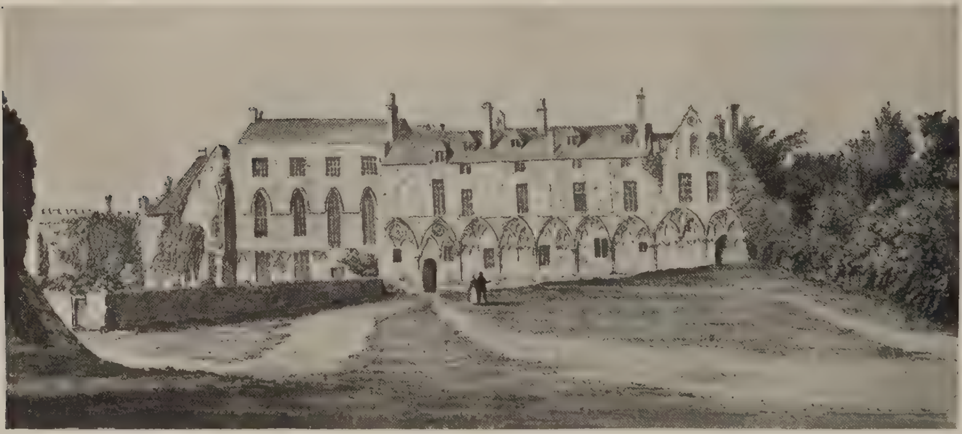

THE SOUTH-WEST VIEW OF BATTEL-ABBY, IN THE COUNTY OF SUSSEX.
To Sr THOMAS WEBSTER Bart
Proprietor of this ABBY.
This Profpect is humbly Inscrib'd by
his most Obedt Servts
Saml & Nath Buck

1. Buck's view from the west



2. Grimm's view from the west



3. Grimm's view from the east

Published by the Society of Antiquaries of London, 1933

former is a tall lancet window. Beneath the window is a pointed-segmental arch, of a single chamfered member, 7 ft. wide, forming a recess above the altar. On the back of this recess are the remains of some fourteenth-century painting of an elaborate cusped and crocketed niche in which seems to have been the picture of a rood (pl. XXXVIII, 1). The piscina has been destroyed by the insertion of a small Tudor window, and there are no remains of any windows in the south wall. In the north wall, next the east end, is part of an original cupboard with segmental head which was blocked when the fourteenth-century window was inserted to the west. This window has, towards the chapel, a wide splay on the east side, but square on the west and has a segmental rere-arch.

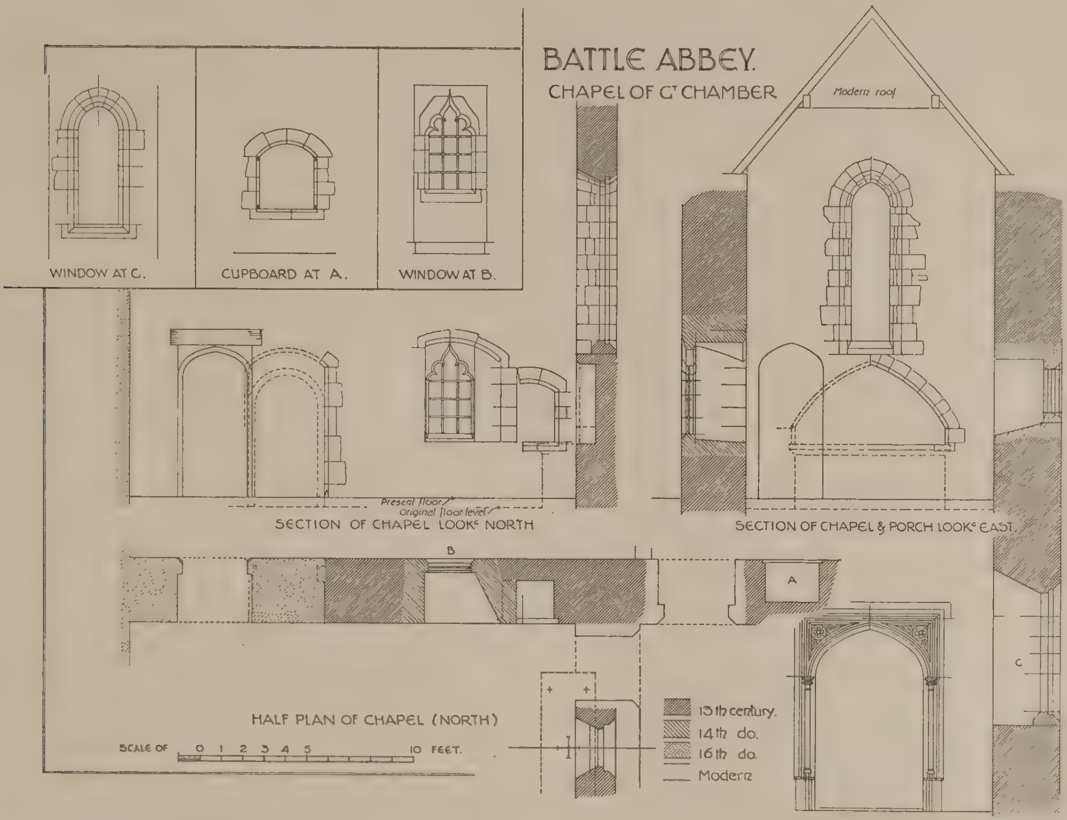


Fig. 5.

Under the chapel must have been some sort of subvault, but nothing of its original arrangements has been found except that in the south wall are two small lancet windows. In the fifteenth century the space of this subvault was made into a porch for the abbot's new hall, but this was re-arranged by

Sir Godfrey, who besides putting a new entrance doorway of Coade's stone in the west wall covered the side walls with studding and added a plaster vault.

In the east wall is the fifteenth-century doorway to the hall, which consists of two moulded orders, of which the inner is a four-centred arch and the outer is taken up to a flat lintel. The internal jambs of the doorway are somewhat similar to the outer, but the lintel is made in oak, and the original hooks for the door hinges still remain in the north jamb.

THE ABBOT'S LATER HALL

A new hall, for the use of the abbot, was built in the fifteenth century to the south of the great-chamber. It is 58 ft. from north to south by 30½ ft. wide, and the floor is almost level with the subvaults of the abbot's house. The walls are of the unusual height of 40 ft. and are lined internally with a rough ashlar face. A new roof was put over it by Sir Godfrey Webster, which was divided into four bays with arched hammer-beam principals, and had two purlins on either side with curved wind-braces. This roof was destroyed by the fire.[1]

The north wall seems to be of various dates but there are no definite indications of any original features. High up in the north-west angle was discovered the lower part of what appeared to be a thirteenth-century circular chimney, that had a moulded base with foliations at the corners; but there is no sign of any fireplace requiring this chimney. Across the north end of the hall were formerly the screens with a gallery above, but there is no record when these were destroyed.[2] Sir Godfrey made a narrow bracketed gallery against the north wall to lead to the room made out of the chapel over the porch, and this was destroyed in the fire.

In the northernmost bay of the west wall is the back of the entrance doorway from the porch, and immediately to the south is the north jamb of a fourteenth-century window belonging to a building that has been destroyed. In the remaining three bays were large windows, each of four lights, of which the external outer member and the internal splays and rere-arches remain. The sills were 4 ft. 10 in. below the present ones and, with the lower part of the mullions, still remain embedded in the walls. When these windows were destroyed is not known, but the duchess surmises that they were removed 'probably by Sir Thomas Webster and filled with kaleidoscopic coloured glass by Sir Godfrey', which seems to be correct as the windows had four lights in

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[1] The present roof is more or less on the lines of the former one; is all constructed in English oak, and is plastered between the rafters.

[2] The present gallery takes the place of that of the original screens and it is intended to replace the screens below it at a future date.

1783, though the sills had been raised to the level of the present ones. These latter windows were destroyed in 1876 by the Duke of Cleveland, and 'the three new windows are exact copies of a fourteenth-century chancel window in the old chapel at Petworth'.[1] These truly hideous windows, entirely incongruous with their surroundings, were so damaged by the fire that they were able to be removed.[2]

In the third bay from the north was a great fireplace with a flat segmental-arched head: it is 10 ft. wide and no less than 5 ft. deep, but the chimney-piece has been destroyed. It had two flues running up the buttresses on either side of the window above, and the whole appears to be an insertion of Tudor times.

Close to the south wall is the south jamb and half of the arch of a doorway, four-centred, that had a deep moulded member. It led outwards and apparently connected by a pentise with the passage, now underground, to the subvault of the monastic guest-house.

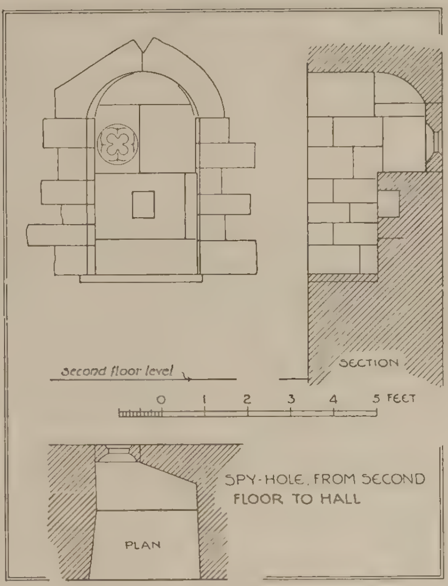

Fig. 6.

In the south wall, high up, so as to escape a two-storied building below, is a wide window of which the external outer order and the internal splays are original, but nothing was found of the original mullions. In this was the tracery 'taken from those in the nave of Strasburg cathedral'[3] which was so much damaged by the fire that it could be removed without regret.[4] Beneath this window is a segmental construction arch which seems to have been over a barrow hole to give the workmen and materials access during the progress of the work.

The east wall is devoid of original features, except a doorway in the north bay similar to that of the entrance opposite.[5] High up in the wall at 11 ft. from the north end is a quatrefoiled squint, which proves that there must have been a building of three stories in continuation of the western range. This could not have extended farther south than the first bay of the later hall, or it would have blocked the great west window of the frater. As already suggested, the ground floor of this building contained the buttery and pantry with the abbot's bedroom above, and the third storey, apparently added in the fifteenth century, contained the room for his steward, with the squint into the hall for him to see that good order was kept (fig. 6), but there is no indication how this top room was reached.

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[1] *Battle Abbey*, 267.

[2] The new windows are of three lights with transoms, but the sills were put at the level of the duke's windows before the remains of the earlier windows had been discovered (pl. XLII, 1).

[3] *Battle Abbey*, 267.

[4] The new window is of five lights with tracery in the head.

[5] In the second bay from the south is a modern fireplace that has taken the place of one inserted by Sir Godfrey Webster; and on either side of it, to light a passage on the first floor, is a wooden window.

The Abbot's Kitchen

Covering the east side of the southern bay of the later hall and occupying the space up to the monastic kitchen is a building of the same date as the hall, originally of one storey, but now divided into two. It measures 28½ ft. from north to south by 23 ft. wide at the north end, and 18½ ft. at the south, and was evidently built as an independent kitchen for the use of the abbot's house.

In the north wall is a great fireplace, with segmental arched head, 10 ft. wide by 5 ft. high; but the back of the fireplace had been destroyed. There was presumably a doorway in the wall to the east of the fireplace, which communicated, by a pentise against the frater wall, with the pantry of the earlier house.

In the east wall, besides the modern window, is a large doorway with a pointed head that led from the passage of the monastic kitchen. The wall then sets forward on the inside 3 ft. and in this is a vice, entered from the abbot's kitchen by a doorway. At 8 ft. above the latter is a similar doorway which led apparently to a gallery across the south end of the kitchen. At 16 ft. from the floor is a third doorway that seems to have led to a small room over the splayed window of the monastic kitchen. On the east side of the vice is a fourth doorway that gave access to the leads over part of the monastic kitchen. The vice continues upwards to 27 ft. from the ground, when it changes into a straight stair, in the wall, to the north; at the top of which is a doorway on to the south gutter of the frater. This staircase was formerly covered by a roof of the same pitch as the ascending steps (pl. XXXIX, 3), but was made by Sir Godfrey to resemble a tower with a battlemented parapet.

In the angle, between the splay of the vice and that of the kitchen window, is part of a four-centred arch, but it is difficult to understand, as the wall of the kitchen had been rebuilt in front of the two lower doorways of the vice.

In the lower part of the south wall are two of Sir Godfrey's wooden gothic windows, but in the room above is a four-light window, with tracery, under a four-centred arch and is referred to by the Duchess of Cleveland as '. . . my sitting room, formerly part of the old monastery and still traditionally called the Abbot's Parlour. Above its two ugly modern Gothic windows remains

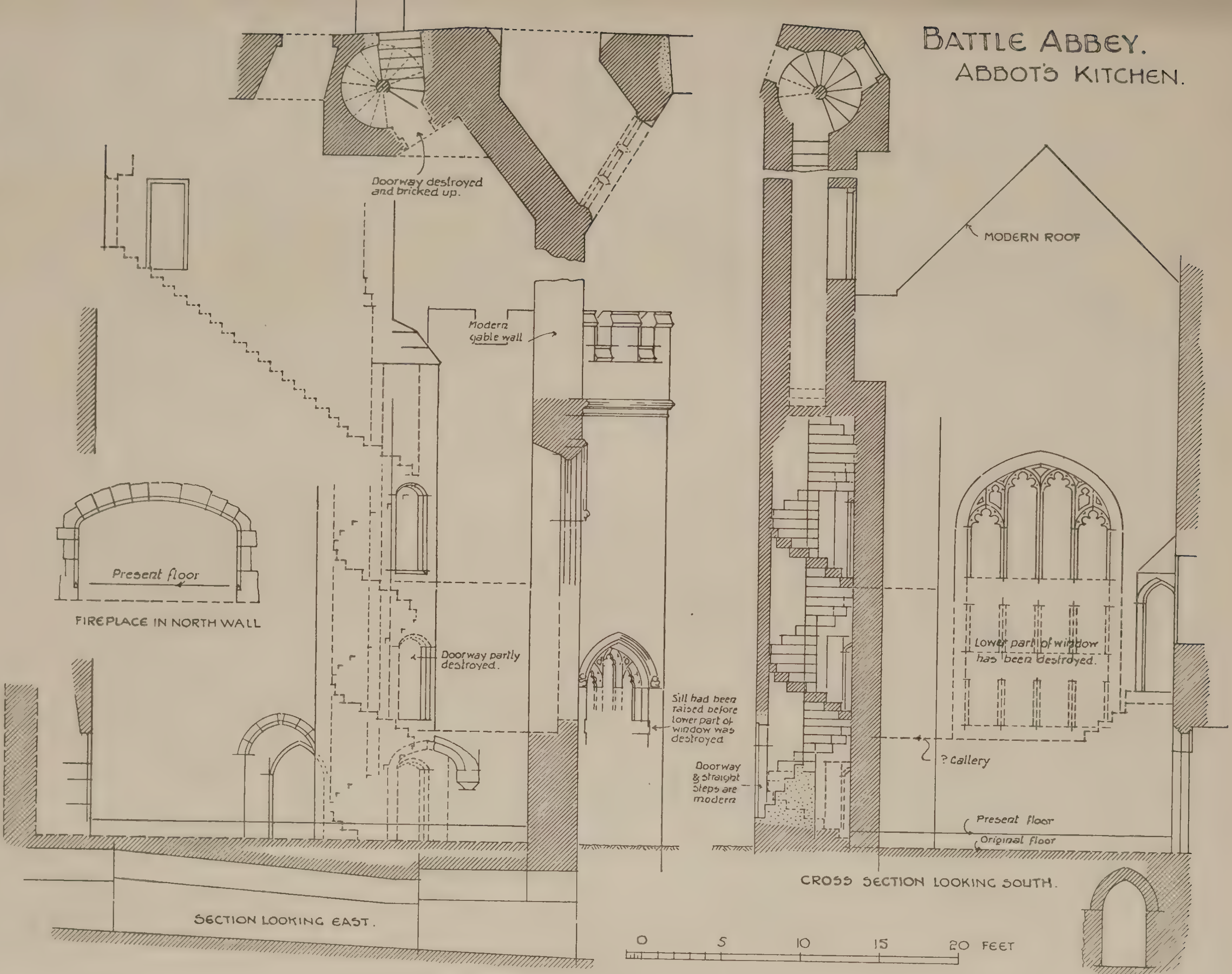
BATTLE ABBEY.
ABBOT'S KITCHEN.
Doorway destroyed and bricked up.
MODERN ROOF
Modern gable wall
Present floor
FIREPLACE IN NORTH WALL
Doorway partly destroyed.
Sill had been raised before lower part of window was destroyed
Lower part of window has been destroyed.
? Gallery
Doorway & straight steps are modern
Present floor
Original floor
CROSS SECTION LOOKING SOUTH.
SECTION LOOKING EAST.
0
5
10
15
20 FEET

Fig. 7.

one that belonged to the original building, and is shown in Grimm's view, though the tracery has apparently been restored or renewed since then. Its length has evidently at some time or other been much curtailed to make room for the windows below'.[1]

In the west wall is a four-centred arched doorway, with deep mouldings, which is opposite the south wall of the later hall, and probably led into a little lobby in the thickness of the wall, that had another door into the hall itself, so arranged that those sitting at the high table should not see directly into the kitchen. A little to the south of this doorway, but 12 ft. from the ground, are two chamfered jambs of the back of a doorway from the rooms at the south end of the hall. This doorway seems to have had a landing, projecting into the kitchen, with steps down to the gallery across the south end of the kitchen. At this level, in the south-west corner, are the remains of a doorway, across the angle, with a half-arch above to carry the north wall. Inside was a chamber 4¾ ft. wide which was apparently a garderobe.

Beneath the abbot's kitchen is a large arched drain, averaging 3 ft. in width and 5 ft. in height, that led from the court on the north towards the south.

The South Rooms

The existence of a range of chambers at the south end of the later hall has already been referred to. This is indicated by the height of the south window of the hall, and the doorway in the west wall of the kitchen, but beyond this nothing is known of its character.

One of Grimm's views shows this two-storied range, lighted by square-headed mullioned windows, but this building was destroyed by Sir Godfrey Webster who erected a large room in its place, and this in turn was removed by the duke to make way for the present study and ante-room.

Sir Anthony Browne's House

To bring the story of the abbot's house at Battle to a logical conclusion it will be necessary to trace the character of the additions that were made to it by Sir Anthony Browne.

Those changes made by Sir Anthony in the abbot's old house have been described in dealing with that building; but the extensive additions, said to have been made for the accommodation of Princess Elizabeth, were quite a distinct erection to the south and west.

Most of the ground plan of this great building remains (pl. XL) together with two turrets to their full height at the angles of the western extension. These with the drawings of Buck and Grimm are sufficient to give, with considerable

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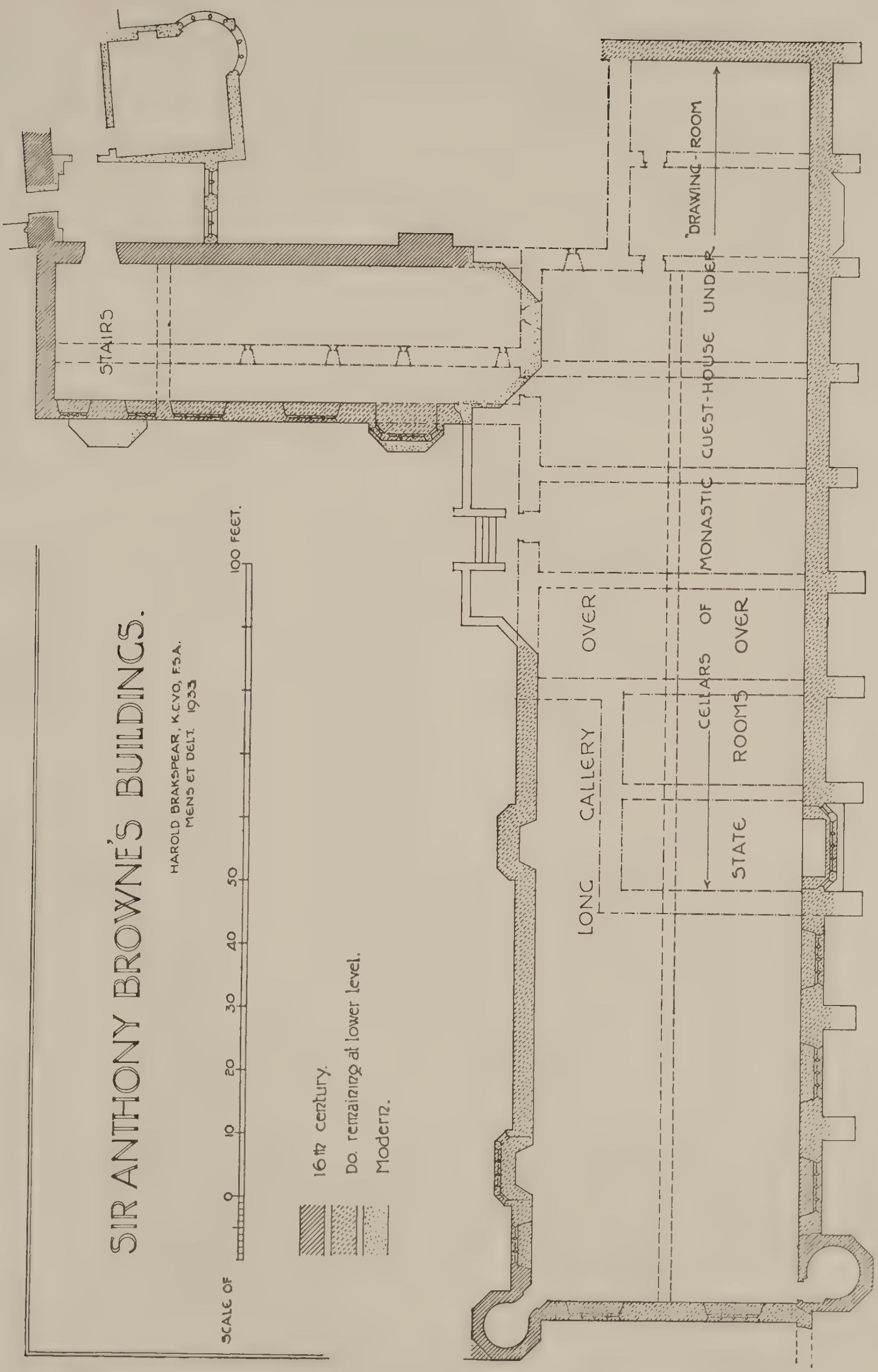
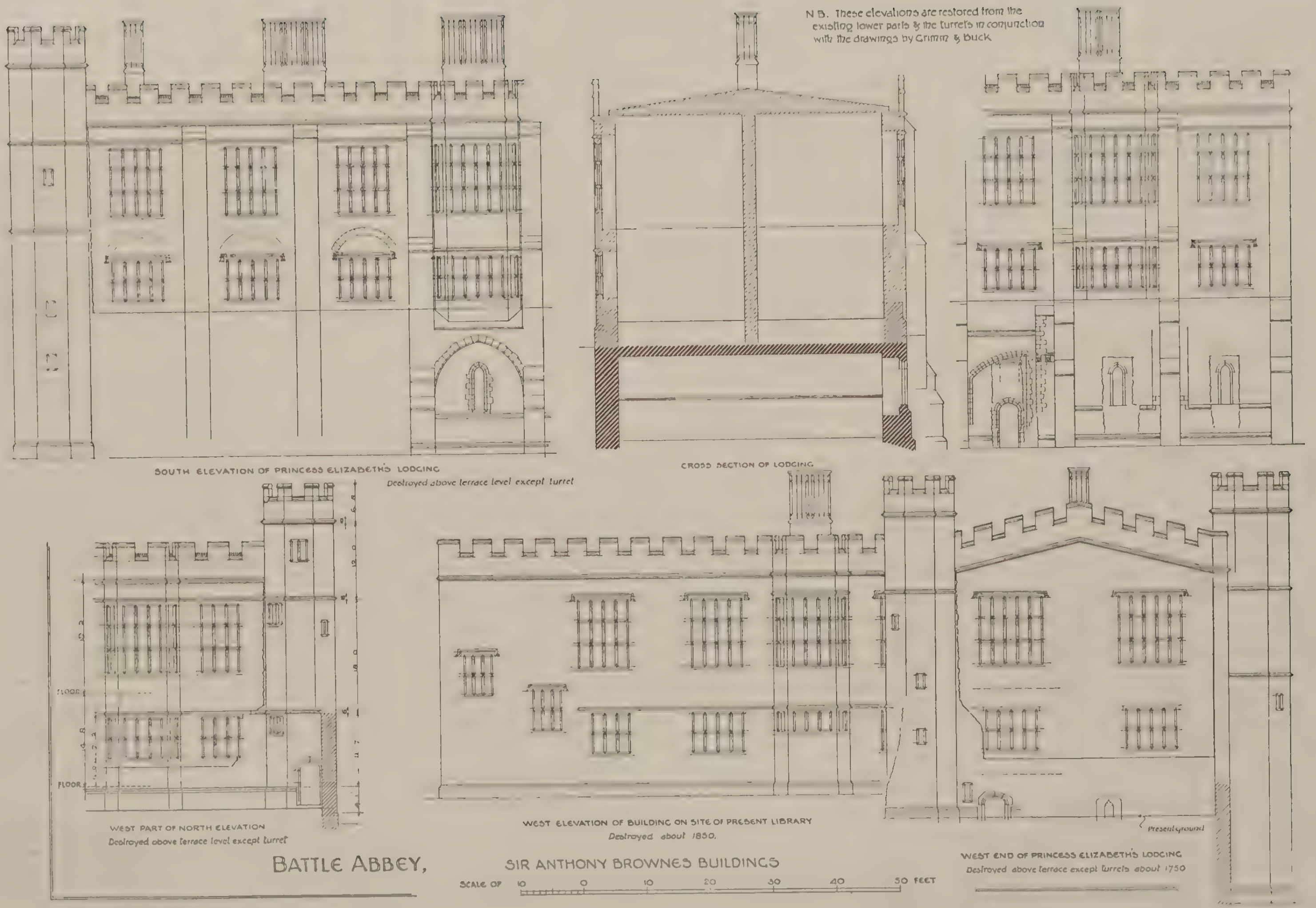
[1] *Battle Abbey*, 239.



SIR ANTHONY BROWNE'S BUILDINGS.

HAROLD BRAKSPEAR, K.C.V.O., F.S.A.
MENS ET DELT. 1933

Published by the Society of Antiquaries of London, 1933


N.B. These elevations are restored from the existing lower parts & the turrets in conjunction with the drawings by Grimm & Buck
SOUTH ELEVATION OF PRINCESS ELIZABETH'S LODGING
Destroyed above terrace level except turret
CROSS SECTION OF LODGING
WEST PART OF NORTH ELEVATION
Destroyed above terrace level except turret
FLOOR
FLOOR
WEST ELEVATION OF BUILDING ON SITE OF PRESENT LIBRARY
Destroyed about 1850.
Present ground
WEST END OF PRINCESS ELIZABETH'S LODGING
Destroyed above terrace except turrets about 1750
BATTLE ABBEY,
SIR ANTHONY BROWNES BUILDINGS
SCALE OF 10 0 10 20 30 40 50 FEET

Published by the Society of Antiquaries of London, 1933

accuracy, the general appearance of the sixteenth-century house, but there remain no indications of the internal divisions. Like the Elizabethan buildings at Cowdray, Kenilworth, and Haddon, the chief rooms were on the first floor, and there was an extensive use of bay windows. The work, however, was begun in 1542 and is the most advanced type that has been met with at that date (pl. XLI).

The additions may for convenience be grouped into two sections, namely, the south wing occupied by the present library, and Princess Elizabeth's lodgings.

The South Wing. This south wing was 74 ft. from north to south by 22 ft. wide, and its north-east angle adjoins the south-west angle of the later abbot's hall. It was gained through the small building at the south end of the hall and was apparently built by Sir Anthony Browne. The setting out of it at an angle with the rest of the house was determined by using the west wall of a passage of the thirteenth century, which led from the subvault of the monastic guest-house to the abbot's house, for the foundation of its west wall. The north wall of the wing remains, with a small two-light window that lighted a staircase, and the east wall is incorporated in that of the present library.

The wing was standing in a neglected condition when the abbey was bought by the Duke of Cleveland and is thus described by the duchess:

> This was built in Edward VI's time by Sir Anthony Browne . . . but he never lived to see it completed. . . . His successor, the first Viscount Montague finished it for his own use, as it then joined a large building that occupied the Upper Terrace, and was the dwelling place of the family. It is a little doubtful whether Queen Elizabeth's wing was ever really inhabited or even completely finished; it certainly was not in a habitable state when we came here in 1858. The roof was a rough and apparently temporary one; there was no flooring to the lower rooms, and though planks had been laid down in the upper storey, there were no means of reaching it. Some small Tudor windows ascending in the north-west angle, showed where a grand staircase had once been, leading, it is said, to a guard-room 46 feet by 22, opening into an ante-room which communicated with the building on the Upper Terrace. The double range of windows were of much the same character as those of Haddon Hall; the upper ones the largest, as it was at that time usual to have the principal rooms on the first floor; and towards the further end there was a large bay, . . .
>
> Of this neglected building, the Duke . . . resolved to make his library, and he employed as his architect Mr. Henry Clutton, . . . My only regret was for the old windows. Mr. Clutton had seemed to admire them as much as I did myself, and promised to retain and adjust them wherever he could; but somehow they disappeared one after the other, till one small stair-light alone was left, awaiting its turn to be destroyed. Fortunately at this juncture we happened to come down from

London to watch the progress of the works, and I begged it off at the last moment. It is in the corner of the north angle.

This end of the building was scarcely meddled with, except to add a new window and close up the old ones, but the west front may almost be said to have been reconstructed, while the southern extremity, then square, was pulled down to make room for the large bay window. The old masonry, three feet thick, was found to be in excellent condition.[1]

From this description of the way the remodelling of the old south wing was accomplished, it is a pity that the duchess did not 'happen to come down from London' before all the damage had been done and the very dull and incongruous erection had taken its place.

The west side of the wing is clearly shown on Grimm's view (pl. XXXIX, 2). It was of two stories: the north end was occupied by a staircase, lighted by small windows following the ascent of the steps. The rest of the wing on the first floor seems to have been one room with a bay-window. The ground storey, between the staircase and the bay, was lighted by two windows of four lights with a transom, that were built up in their lower part. On the first floor over the lower windows were similar windows but each with two transoms. The bay had three-light windows in front and single lights on the splays, ranging with the other windows. Southward of the bay there seems to have been a three-light window to each storey. The building was finished by a cornice and a battlemented parapet.

Princess Elizabeth's Lodging. The subvault of the monastic guest-house consists of eight barrel-vaulted chambers set side by side. Upon this subvault Sir Anthony Browne began to build the spacious lodgings, intended for the use of the Princess Elizabeth, which besides occupying the site of the guest-house was continued 60 ft. farther to the west (pl. XL). The whole building was 197 ft. long by 42 ft. wide, and was of two stories above the guest-house subvault.

The ground on the north side was made up to the top of the subvault; at this level was a story of moderate height, and the main floor was above.

The south side was divided into twelve bays by buttresses, which were carried up from those of the guest-house, the full height of the wall, and these were copied in the four new bays to the west. In each bay of the floor over the subvault was a mullioned window apparently with a transom, and in each bay of the main floor above was a mullioned window with two transoms. There was a bay-window in the second bay and another in the ninth bay. The wall was finished with a moulded cornice and a battlemented parapet (pl. XLI).

The west elevation was flanked by the octagonal turrets which still stand.

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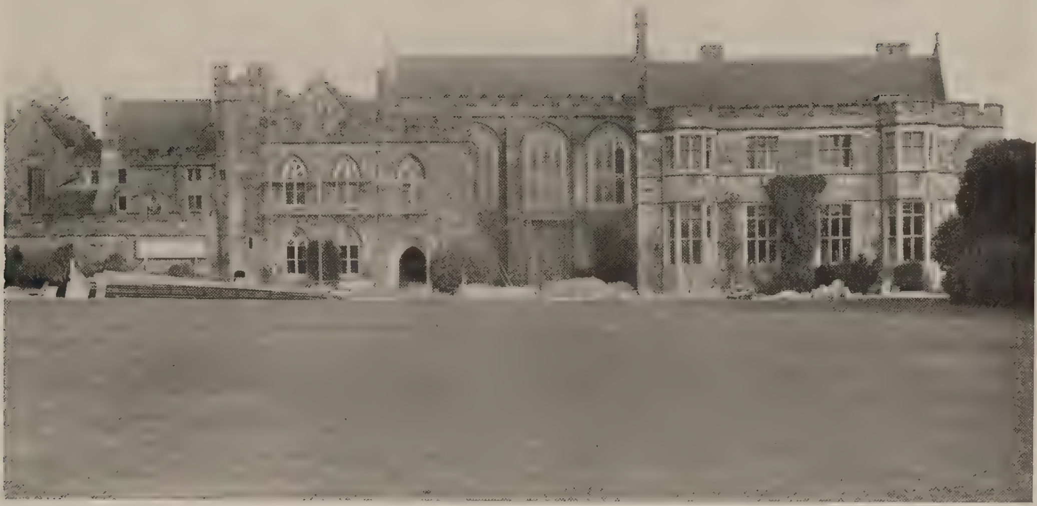
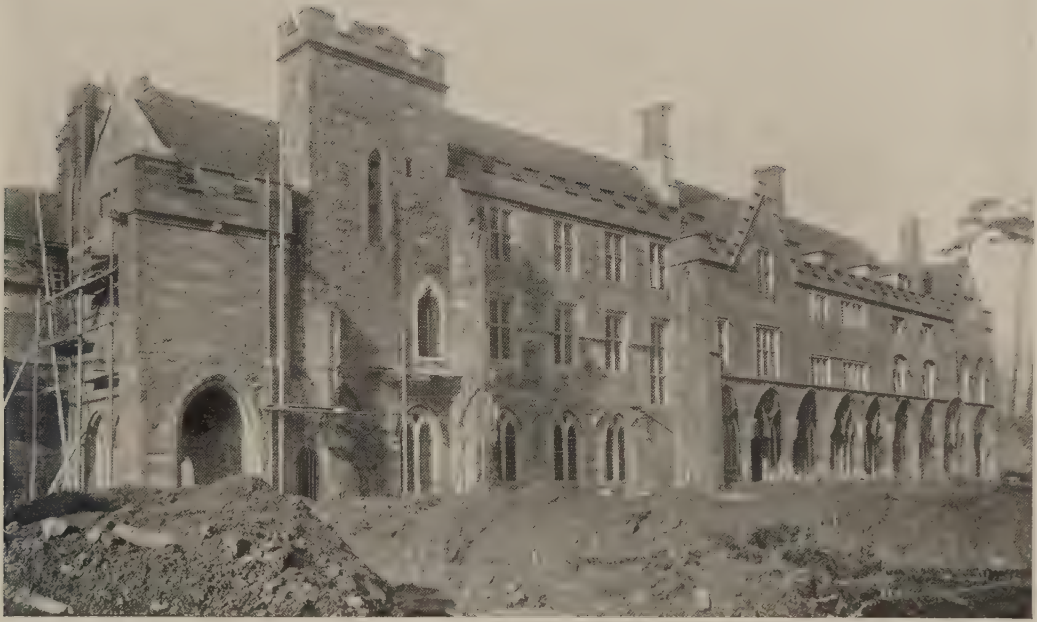
[1] *Battle Abbey*, pp. 234 and 235.



1. West front, 1933



2. East front, 1933

Published by the Society of Antiquaries of London, 1933

They are each 47 ft. in height above the subvault and finished with battlemented parapets. They rose considerably above the roof of the main building and have string-courses and doorways which show the heights of the various floors. Between the turrets, on the floor over the subvault, were two windows of four lights with a transom. In Buck's view (pl. XXXIX, I) the southern is shown different from the northern, but this may be that the lower lights had been built up as had been done in the south wing. To the main floor there were a pair of five-light windows, with two transoms, in line with those on the south side, and the wall above was finished with a low-pitched gable with a battlemented parapet.

The north side was apparently similar to the south above the subvault but without buttresses. There were two bay-windows, and the west jamb of the westernmost window remains. Buck shows five stacks of chimneys, but they do not help to show how the building was subdivided.

The Duchess of Cleveland states correctly that on the site of the terrace stood the monks' guest-house, and goes on to say that

> this building Sir Anthony Browne converted into his manor-house, probably pulling down the greater part of it, and adding 40 feet to its length . . . but it was left unfinished at the time of his death, and completed by his son Lord Montague. It was a handsome and striking house, with a double row of square Elizabethan windows divided by buttresses; those belonging to the state apartments again above: and the lower ones evidently inserted in the round arches [1] that had formed part of the Guest-house. A bay window, near the east end, lighted a drawing-room measuring 31 feet by 29 feet, which there formed the angle of the building. From thence a gallery 162 feet long, extended along the front to the octagon towers at the west end, while, at the back, a range of small rooms looked northwards into the court. This gallery communicated with the ante-room already mentioned in the present Library Wing.[2]

It is doubtful if the duchess's suggested arrangement of the main floor is correct, as, from the equal-sized windows in the west end, it would seem that the building was divided down the middle, and that there were no small rooms on either side. The long gallery would naturally occupy the north side, and the south would be occupied by the state apartments, otherwise, as the main floor was approached by the so-called guard-room and ante-room in the south wing, there would have been a difficulty in gaining the gallery had it been on the south side, whereas if it were on the north it connected directly with the ante-room and all the state rooms would open off it in a rational manner.

In connexion with Sir Anthony's building operations the duchess states that there is still a letter in existence, but does not say where, written to Sir Anthony's steward by an officer of his household, dated 11th July (1539)

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[1] These round arches had certainly nothing to do with the guest-house as they occur in the new bays at the west end, but are obviously the usual relieving arches of the period.

[2] *Battle Abbey*, 235.

> respecting the rough-layers or masons to be employed at Battle Abbey, as he hears 'that those sent by Mr. Bartlett are returned home to their own country'. It seems the works were undertaken by some builder by contract, and the writer enjoins the steward 'that ye woll see them well handelyde in their wages, yf men feell no gayne by their labors and travell hytt were as goode that they werre gone, for they woll worke none theire after. As I understande the worke is takyn in grett by one manne, and he doweth gyve small wages by cause hys owne gayne should be the more.[1]

There is a manor map of 1724, made for Sir Whistler Webster, now in the hands of the solicitors to the Trustees, on which is a picture of the house, but it is, though carefully drawn, on such a small scale that it adds little information to that given on Buck's view.

With respect of the demolition of this wing the duchess says that

> Sir Whistler destroyed the building, leaving only the two towers still standing at one end, and at the other the square drawing-room that formed the angle to the east, which remained till about twenty-five years ago, and appears in most of the engravings of the place as well as in one of Turner's sketches. Left thus isolated, it stood, like a square three-storied tower, right in front of the south end of the Abbot's Hall, blocking out all sunshine from the few rooms in the Abbey looking in that direction. Partly on this account, and partly because it threatened to become unsafe, it was taken down by Lady Webster a few years before we came here. I found its remains strewing the court and terrace, and among them I discovered a Tudor chimney-piece in excellent preservation.[2]

This completes the story of the abbot's house of Battle so far as it can be gathered from the remains of the house itself, and the scanty evidences that have been met with. Some points are not clear, and some of the deductions may be questioned, but the aim of the writer to put on record the history and description of what exists of this exceedingly interesting medieval house has been accomplished.

In conclusion he wishes to tender his grateful thanks to the Trustees of the estate, to Mrs. Jacoby the tenant, and to Mr. A. C. Probyn-Williams the solicitor of the Trustees, for the assistance they have afforded him in the preparation of the paper: to the Trustees of the British Museum for the photographs on plate XXXIX, 2 and 3, and last, but not least, to Mr. Frederick Jones, the clerk of works during the repairs, for countless measurements and drawings from which a number of the illustrations have been prepared.

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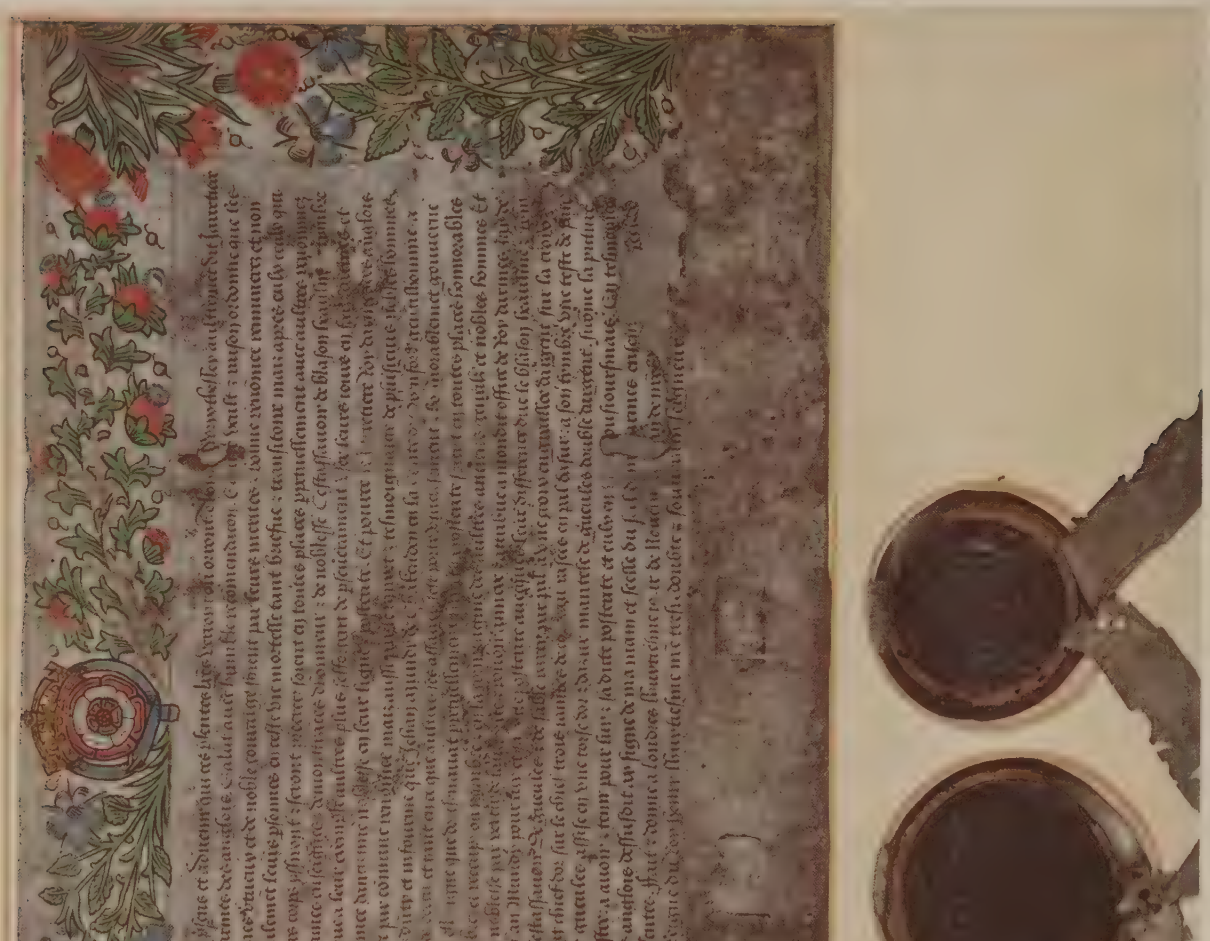
[1] *Battle Abbey*, 235.

[2] *Ibid.*, 236.



Grant of Arms to John Mundy, 1510 (½)

Published by the Society of Antiquaries of London, 1933

VII.—*A Grant of Arms of the year 1510.*

By the Rev. Prebendary W. G. CLARK-MAXWELL, *F.S.A.*

Read 2nd February 1933

THE grant of arms here reproduced was made in November 1510, by Thomas Wriothesley, Garter King of Arms, to John Mundy, described as gentleman, of Chakenden (Checkendon) in the county of Oxford. It is written on a sheet of parchment 17¾ in. by 9½ in., which has suffered somewhat from damp; the margins are decorated, as will be seen in the illustration (pl. XLIII), with a rather coarse but effective design of flowers, while the arms and crest occupy the customary position on the left hand. There are two seals, both now detached from the document, enclosed in the usual wooden cases, which are a good deal worm-eaten; the larger seal 2½ in. diameter, is that of the Garter Office: a cross between four doves with wings expanded; on a chief a crown within a garter between a leopard and a fleur-de-lys, with the legend: **Sigillvm . Officii . Garterii . Regis . Armorvm . Anglicorvm.** The smaller (left-hand) seal 2 in. diameter is that of Wriothesleys' own arms, quarterly I and IV, a cross and four falcons for Wriothesley, II, Fretty and a quarter with a lion passant in the quarter, for Dunstaville, III, a pale lozengy and a border bezanty, for Lushill, but the legend is indecipherable, both seals having suffered greatly from abrasion.

The text of the document is as follows:

A Tous p'sens et aduenir qui ces p'sentes lr̄es verront ou orront. Thomas Wryothesley aultremet dit Jarretiere Roy darmes des anglois. Salut auec humble recomendacōn: Equite veult & raison ordonne que les hommes v'tueux et de noble couraige soient par leurs merites & bonne renōm̄ee remunerez et non pas seulemēt leurs ꝑsonnes en ceste vie mortelle tant briefve & transitorie/mais apres eulx ceulx qui de leurs corps yssiront & seront procreez soient/en toutes places ꝑpetuellement/auec aultres renommez ꝑ certaines enseignes & demonstraunces dhonneur & de noblesse. Cestassauoir de blason heaulme & tymbre affin que a leur exemple aultres plus sefforcent de ꝑseuerām̄ent vser leurs iours en faitz darmes et œuures pour acquerir la renōm̄ee dancienne noblesse en leur ligne & posterite. Et pource Je Jarretiere Roy darmes des anglois dessusdit qui non pas seulemēt par cōmune renōmee/maiz aussi par le rapport & tesmoignaunce de plusieurs nobles hommes dignes de foy suis pour vray adu'ty et infourme que Jehan mundy de Chakenden en la conte de Oxenford gentilhomme a longuement poursuit les faitz de vertu/et tant en ce que aultres ses affaires sest porte v'tueusement & hounorablemēt gouuerne tellement quil a bien deservy et est digne que doresenauāt ꝑpetuellement Luy et sa posterite soient en toutes places honnorables admys renomez comptez nombrez et receupz ou nombre & en la compaignie de aultres anciens gentilz et nobles hommes. Et pour le remembraunce dicelle sa noblesse par vertu de lautorite & pouoir annexe & attribue a mondit office de Roy darmes Jay deuise ordonne & assigne audit Jehan Mundy pour luy et sa dite posterite auecques leur difference due le blason heaulme & tymbre en la maniere qui sensuit. Cestassauoir De gueules & de sable party par pal/ a une croix engraillee dargent/sur la croix cincq lozenges de pourpre/a ung chief dor/sur le chief trois iambes de co[rb]eau rasees en pal dasur; a son tymbre une teste de panthere de sable besantee halant de gueules assise en une torse dor & dazur/mantele de gueules double dargent. Sicōme la picture en la marge cy deuant se demonstre: a auoir & tenir pour luy & sa dicte posterite et eulx en use (?) . . . . ousioursmais. En tesmoniance (?) de ce Je Jarretiere Roy darmes des anglois dessusdit ay signe de ma main et scelle du scel de m[es] armes ensem[ble avecques le] scel de mon office de la Jarretiere ces p'sentes. Fait & donne a londres lhuytiesme iour de Nouembre [l]an de nr̄e [seigneur mil cincq] Cens & dix. Et le second an du Reigne du Roy Henry lhuytiesme nr̄e tresredoubte & Souverain Seigneur.

John Mundy's parentage has not yet been established by documentary evidence, but he is said by Stow to have been the son of William Mundy, of High Wycombe, co. Bucks; and he certainly possessed property in that borough, in which several of the same surname, whom we may presume to have been relations, bore office, including the mayoralty, in the fifteenth and sixteenth centuries. He was apprenticed in 1482 to Sir John Shaa, or Shaw, citizen and goldsmith of London and mayor in 1501; and if we may assume him to have been then about seventeen years old, we may place his birth somewhere about 1465.

In 1509-10 he acted as executor of the will of his old master, Sir John Shaa (*Letters and Papers*, Hen. VIII, i, 438, 1, n. 20) and in 1517 in a similar capacity for his father-in-law, William Browne. Through this he became involved in some dispute with William Blount, Lord Mountjoy, who writes to Wolsey to bespeak his favour in the suit between his 'father Kebyll' and John Mundy, and adds 'the matter concerneth the soul of Mr. Browne d[eceased], and of me by my wife and also his children' (*Ibid.*, ii, 825, 2820). 'Father' here probably means father-in-law, and as William Browne had also married a Kebyll or Keble (see Burke's *Baronetage s.v.* Cave-Brown-Cave), the dispute was probably a family one, and referred to some bequest for alms or services for the soul of the departed.

We find Mundy mentioned in 1516 as alderman of Calais, and in 1518 as sheriff of London; (*Ibid.*, ii, 1642, 4114). He served the office of mayor in 1522 and was knighted in 1529. He married, *c.* 1509, as his second wife Juliana, daughter of William Browne, citizen and goldsmith (mayor in 1513), and by her, who died in 1537, he had with other issue, Vincent, his son and heir, born *c.* 1510. William Browne had himself married a daughter of Sir John Shaa, so that Mundy was thus connected with two of the wealthy goldsmith families of London. His son Vincent, though not a goldsmith but bred to the law, followed his father's example by marrying into goldsmith families, his first wife being a Trappes according to some authorities, and his second Juliana Gadbury.

By his first wife Margaret, whose surname we do not know, Mundy had a daughter Margaret, who married as her second husband (and his third wife), some time between 1532 and 1539, Lord Edmund Howard, son of the duke of Norfolk, and father of Queen Katherine Howard. Other children of Sir John's second marriage were: Thomas, the last prior of Bodmin, co. Cornwall, and John, who acquired a long lease of that priory's estate at Rialton, in the same county, and founded a family, which continued for several generations.

In 1516 Mundy acquired from John Touchet, Lord Audley, the manor of Markeaton, together with those of Mackworth and Allestree, in the county of Derby, and this property remained in great part with his descendants in the direct male line, for just over four centuries. Besides the direct branch of the Mundys of Markeaton, Sir John was also ancestor of the Mundys of Shipley, co. Derby, and of the Massingberd-Mundys of Ormsby, co. Lincoln, both of which lines are still in existence.

Sir John Mundy seems never to have lived on his Derbyshire property, and on his death in 1537 was buried in St. Peter's Cheapside, where there was a monument to his memory, which was destroyed in the Great Fire of 1666. Markeaton Hall, which was rebuilt in 1755 by Wrightson Mundy, has now, with the surrounding park, passed into the possession of the borough of Derby.

John Mundy's name occurs not infrequently in the series of letters and papers of the reign of Henry VIII. As goldsmith we find him supplying various articles for the king's new year gifts, while he had monetary transactions, which are not defined, with Margaret, countess of Richmond, and the duke of Buckingham.

It seems probable, on the face of it, that Mundy combined, as was not unusual at the time, the business of a goldsmith with that of a banker and moneylender, and that some of his acquisitions of land were due to the failure of his clients to meet the obligations, for the fulfilment of which they had pledged their property; in 1526, for instance, we hear of a dispute between Mundy and one Fuller concerning lands in Sheppey which 'Mundy has in execution', and it is at least possible that his Derbyshire property was acquired in a similar way. We know that in 1528 John Audley was in Mundy's debt (*Letters and Papers*, iv, 3974); and Cromwell's correspondence includes several letters from the Audley family complaining of Mundy's conduct in sending down men to hold courts in some of the Audley manors, and to collect the rents. This may show either that Mundy was claiming more than he was entitled to do, or that the Audleys were trying to retain privileges that no longer belonged to them (see *Ibid.*, v, 955, vii, 812, viii, 655).

Nor were these Audleys the only debtors who found Mundy an exacting creditor. Mary, Lady Guildford, writes to Cromwell that Mundy to whom she owes £930, refuses to take £500 in satisfaction of his debt, and she desires pressure to be put upon him to make him do so (*Ibid.*, vii, 1553). Thomas, Lord Audley of Walden, writes that he would be able to offer Cromwell a better present, but for the adulation and detraction of these corrupt merchants, especially of Sir John Mundy, of whose 'fettys' the bearer of the letter would deliver a memorial (*Ibid.*, v, 874). Henry Bourchier, earl of Essex, reminds the minister that in order to obtain 500 marks which he had laid out 'at the breche at Erythe' he had laid some plate to pledge with Sir John Mundy, and now wishes it to be restored to him; whether the debt had been paid is not stated (*Ibid.*, v, 1122).

The general impression left by these records is that Mundy was a thrifty and possibly grasping business man who made money out of the extravagances of the nobles of Henry's spendthrift court, while they, for their part, invoked the aid of the all powerful minister to avoid paying their debts in full. Sir John Mundy also acquired from Lord Audley in 1516 certain manors in the extreme north of Staffordshire, Alstonfield, Longnor and Warslow, described as being parts of the honour of Tutbury and of the barony of Markeaton, and owned certain lands at Finderne, co. Derby. These are duly recorded in the inquisitions taken after his death; but no mention is made therein of any other Audley manors; nor, curiously enough, has any evidence been forthcoming to connect him with Checkendon, except the mention of that place in our present document. There is, indeed, in an imperfect manuscript genealogical record amongst the Markeaton papers, probably compiled at the end of the sixteenth century, a statement to the effect that John Mundy was 'borne at or nigh unto Est Chekenden in the county of Oxon' but it is quite as likely that this statement is derived from the language of our grant, as that it has any independent value as evidence. It will be noticed that the grant makes no mention of any illustrious ancestors, and the arms assigned are typical of the period. They are, indeed, much of the same sort as those borne by Cardinal Wolsey; and we may not unreasonably conclude that like Wolsey, Mundy was a *novus homo*, who with increasing wealth and position, felt the necessity for a shield of arms of his own; and that Checkendon represents an early acquisition of land, which was afterwards superseded by his larger estate in Derbyshire.

VIII.—*Some Further Aspects of the Iconography of St. Thomas of Canterbury.*

By TANCRED BORENIUS, *Esq., Ph.D., D.Lit.*

Read 9th February 1933

IN addressing you, as I have the honour to do to-night, for the third time in four years, on the subject of the iconography of St. Thomas Becket,[1] I am fully conscious of the risk I am running of becoming repetitious; but I venture to hope that, when you have heard what I have to say, you will agree that the new material which I am privileged to lay before you is of a nature which justifies my claiming your attention once more in this connexion.

One question which in the light of this additional material I should like to subject to a fresh examination is that of the extent to which a portrait-like character attaches to any of the earliest surviving effigies of St. Thomas. And here it must, of course, be stressed that the middle ages on the whole did not know the individualized portrait as we conceive it. Indeed, that great interpreter of the art and psychology of the middle ages, Professor Julius von Schlosser of Vienna, has declared that roughly speaking up to 1350, the middle ages produced nothing corresponding to what we would call a portrait; and he emphasizes a very curious fact in this connexion.[2] The death mask was by no means unknown to the French middle ages; and a striking instance of its use occurs in the monument, in the Cathedral of Cosenza, of Queen Isabel of France, who died in Calabria during a journey in 1221. The 'official' tomb of the queen, at St. Denis, shows on the other hand a completely conventionalized treatment of her head, in conformity with the canons of taste and decorum which obtained at the time.

And yet, while the general situation is as I have outlined it, there is against this the undoubted fact that the earliest effigies of St. Francis of Assisi do contain at any rate some elements of a portrait-like character. The very earliest of them—the fresco in the Sacro Speco of Subiaco—was painted in 1228—two years after the death of St. Francis and fifty-eight years after the death of St. Thomas Becket.

Before we proceed further in this inquiry it is important to recall what written evidence we have as to the appearance of St. Thomas. He was a tall man, so we are definitely told by William Fitzstephen, who knew him; indeed, a fifteenth-century manuscript gives us his traditional exact length: 'vij fote save a ynche.' Moreover, in one of the Icelandic *Thomas Sagas*, St. Thomas is described as having been 'slim of growth and pale of hue, dark of hair, with a long nose and straightly featured face'; and it has been held that this description must be based on information supplied by some one who had actually seen the archbishop.

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[1] Compare *Archaeologia*, vol. lxxix (1929), pp. 29–54; and vol. lxxxi (1931), pp. 19–32.

[2] Compare Julius von Schlosser, 'Portraiture', in *Mitteilungen des Österreichischen Instituts für Geschichtsforschung*, Ergänzungsband XI, 1929, p. 882.

Now the very earliest surviving representation of the saint need not detain us long; it is a figure, among the mosaics of Monreale, dating from about 1180;[1] and it would obviously be idle to expect a portrait-like character from a Byzantine mosaic like this, done in distant Sicily. There exists, however, one very early English document which most probably has a direct bearing on the iconography of St. Thomas Becket and hence deserves to be discussed at some length. This is an illumination (pl. XLIV, fig. 1) occurring at the beginning of a manuscript of a gloss on the Psalter, of which the author is Becket's friend Herbert of Bosham, who only through having been sent away by his master on a mission in December 1170 escaped being present at the tragedy in Canterbury Cathedral. The manuscript, a late twelfth-century one, is now no. 150 in the Library of Trinity College, Cambridge (having previously been in Christ Church, Canterbury), and the illumination which interests us shows an archbishop, white-bearded, mitred, and with a pastoral staff, wearing mass vestments, with a pallium.[2] With his left hand he makes a pointing gesture as he apparently addresses the youthful Herbert of Bosham, who proffers a book bearing an inscription of which the first words are *Doce illum*. The figure of the archbishop has been identified by Dr. James[3] with William, Archbishop of Sens, to whom Herbert's treatise is indeed dedicated; but others have identified the figure with St. Thomas Becket,[4] and there is indeed a great deal to be said for the view thus taken. Dr. James refers to the single word *Pontifex* occurring at the top of the page; but it is preceded by some other partly obliterated words among which I think we may, however, with absolute certainty make out the first three letters—scs, which is, of course, the usual abbreviation for 'Sanctus'; then there is possibly a T, followed by what looks like an undoubted deliberate erasure, leaving space for at any rate a couple of formerly existing words. Now William of Sens is not a saint, and I doubt

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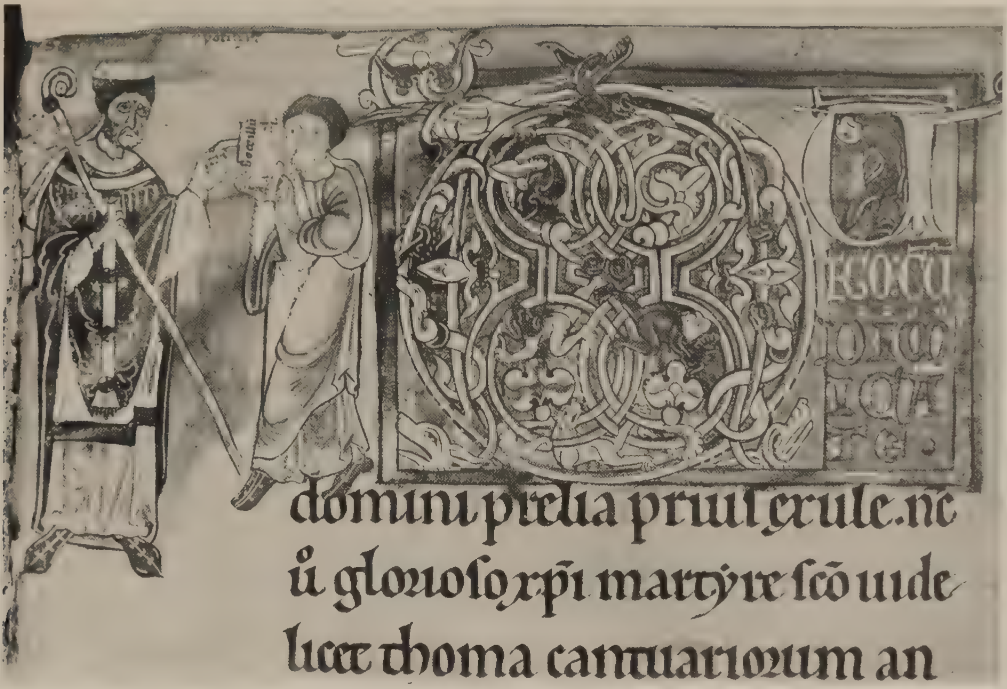
[1] Reproduced in *Archaeologia*, vol. lxxix, pl. IX, fig. 1; and in my book *St. Thomas Becket in Art* (London, 1932), pl. II, fig. 1.

[2] The chasuble is red, the dalmatic blue, the alb pinkish; the mitre is golden.

[3] Montague R. James, *The Western Manuscripts in the Library of Trinity College, Cambridge*, vol. i (1900), pp. 180–94.

[4] Compare, for instance, the reproduction occurring in the illustrated edition of J. R. Green's *Short History of the English People*, vol. i, 1892, p. 202.



domini prelia priuſ exule. ne
ū glorioſo xp̄i martyre ſcō uide
licet thoma cantuarioꝛum an

Fig. 1. Illumination at the beginning of Herbert Bosham's *Gloss on the Psalter*, *c.* 1190–1200. Library of Trinity College, Cambridge

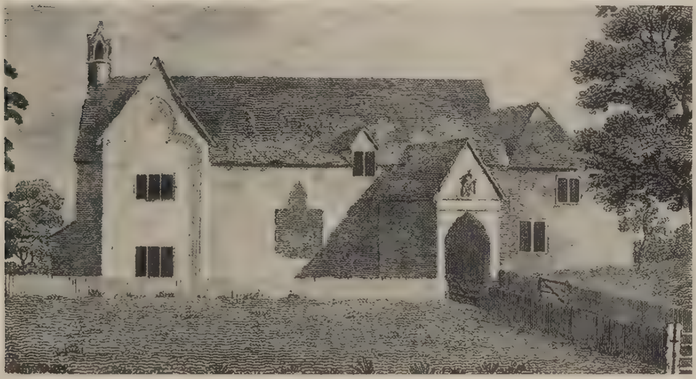


Fig. 2. Court Lodge, Godmersham, 1792. (From an engraving)

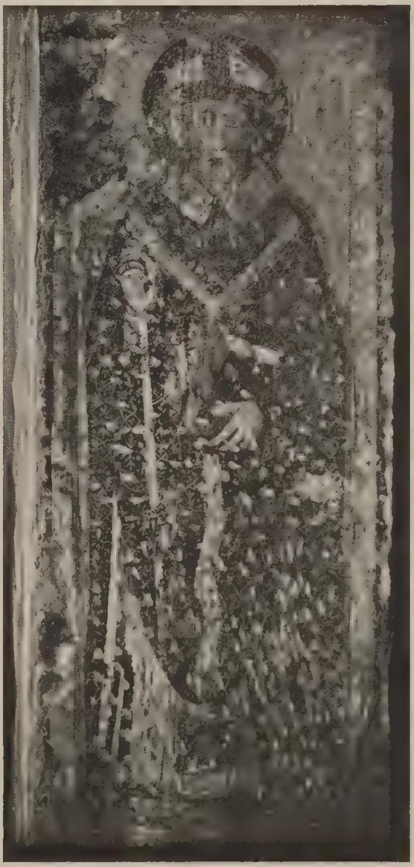


Fig. 4. Fresco, *c.* 1200. Campanile of the priory of St. Thomas of Canterbury, near Riva

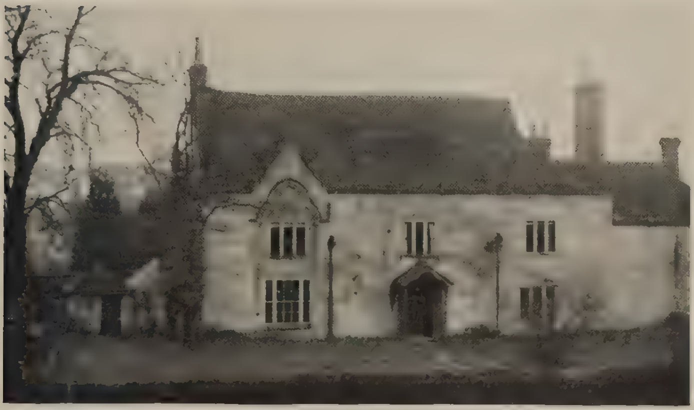


Fig. 3. Court Lodge, Godmersham, 1933

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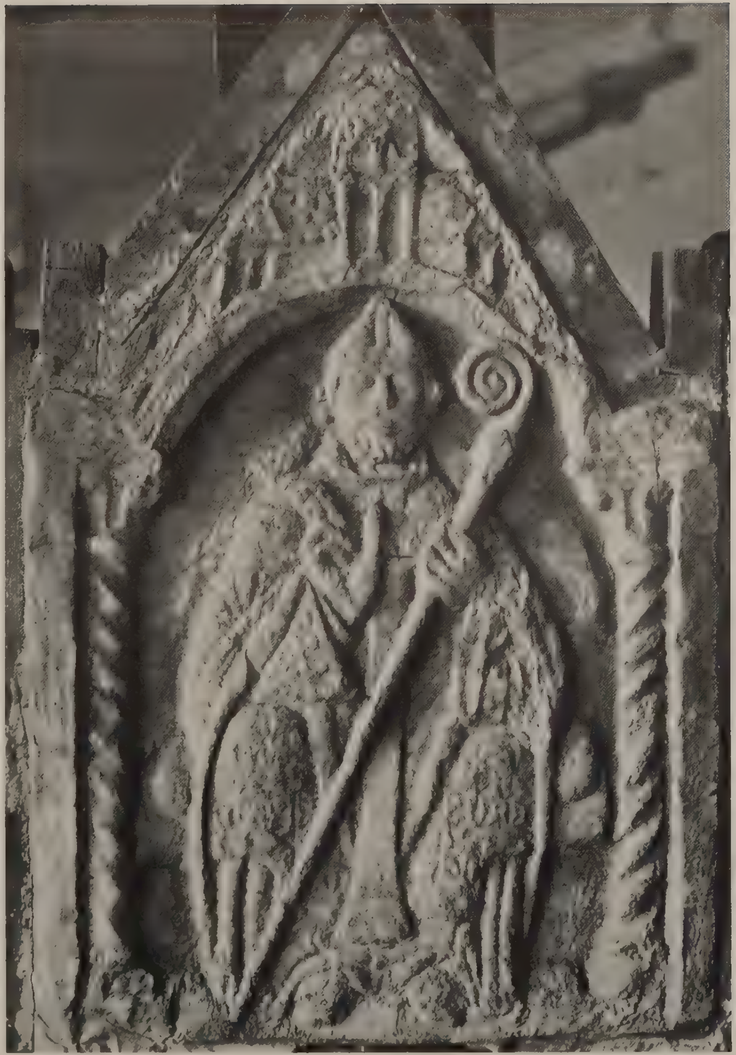

Fig. 1. Stone bas-relief, late twelfth century. Court Lodge, Godmersham (Photograph from a cast)

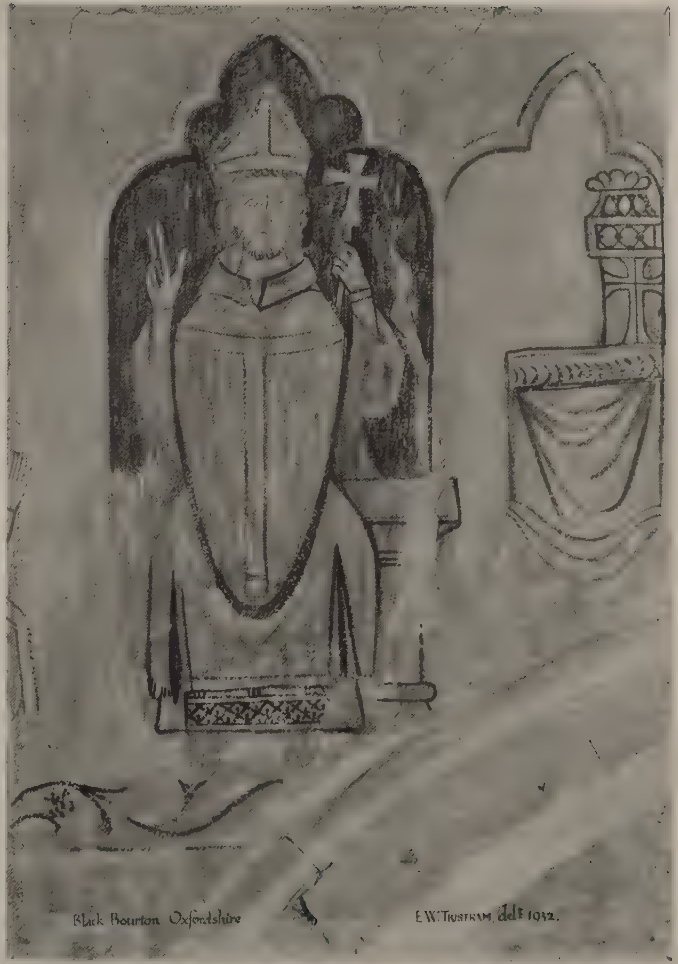

Fig. 2. Wall painting, Black Bourton, Oxon., 13th century. (From a water-colour drawing by Professor E. W. Tristram)

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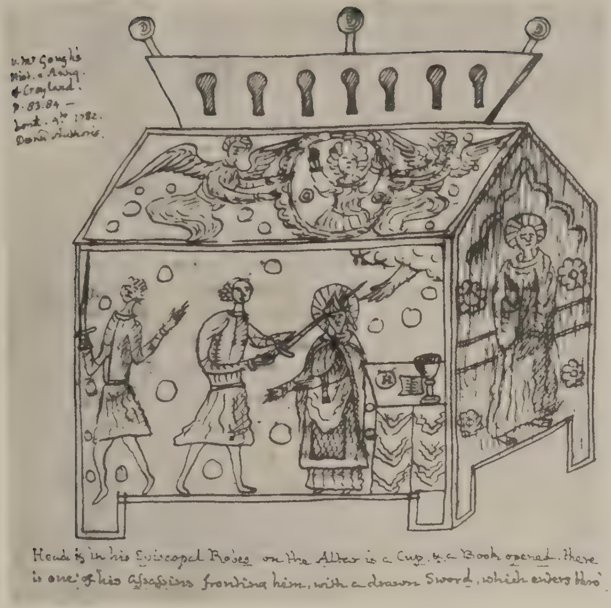

v. Mr Gough's
Hist. & Antiq.
of Crayland.
p. 83. 84 —
Lond. 4to 1782.
Dono Authoris.

Heck is in his Episcopal Robes: on the Altar is a Cup. & a Book opened. there is one of his Assassins fronting him, with a drawn Sword, which enters thro'

Fig. 1. Drawing in MS. Collections of William Cole.
British Museum, Add. MS. 5481

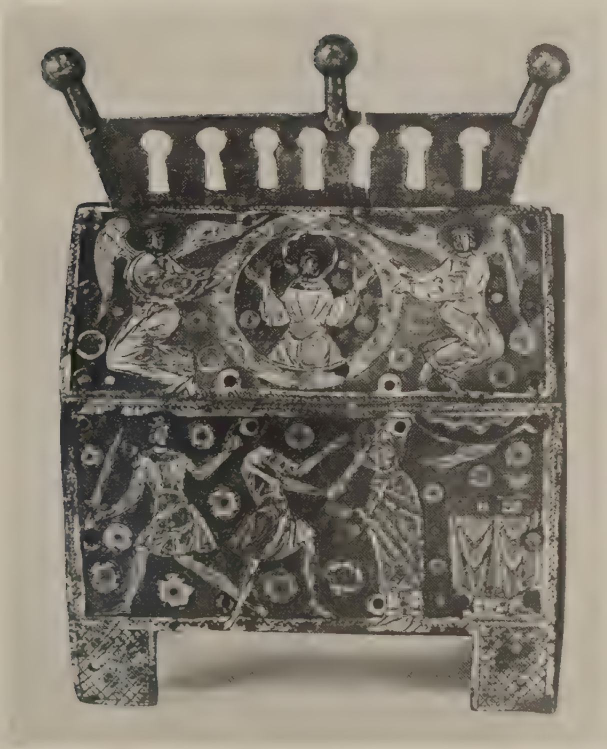

Fig. 2. Enamelled Chasse, Limoges. Thirteenth century.
Leopold Hirsch Collection, London

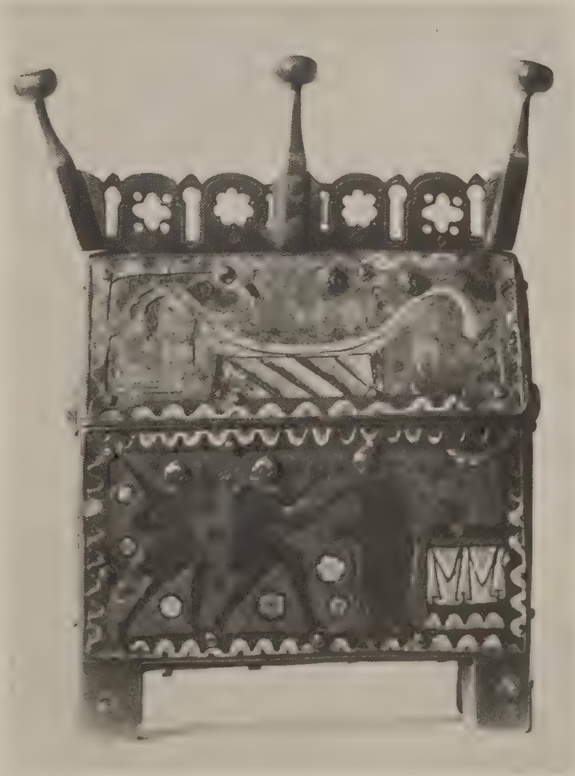

Fig. 3. Enamelled Chasse, Limoges. Thirteenth century.
Herr Hans Bossard, Lucerne

Published by the Society of Antiquaries of London, 1933

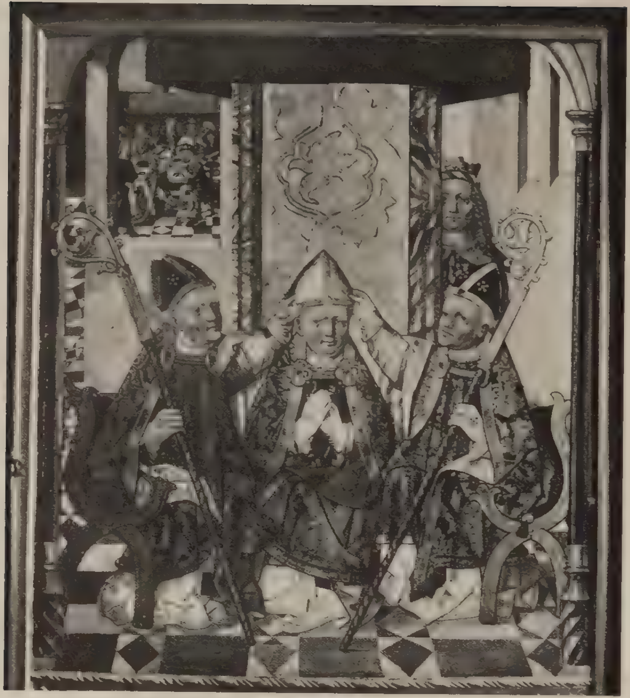

Fig. 1. Consecration of St. Thomas Becket (late fifteenth century). St. Jürgen, Wismar

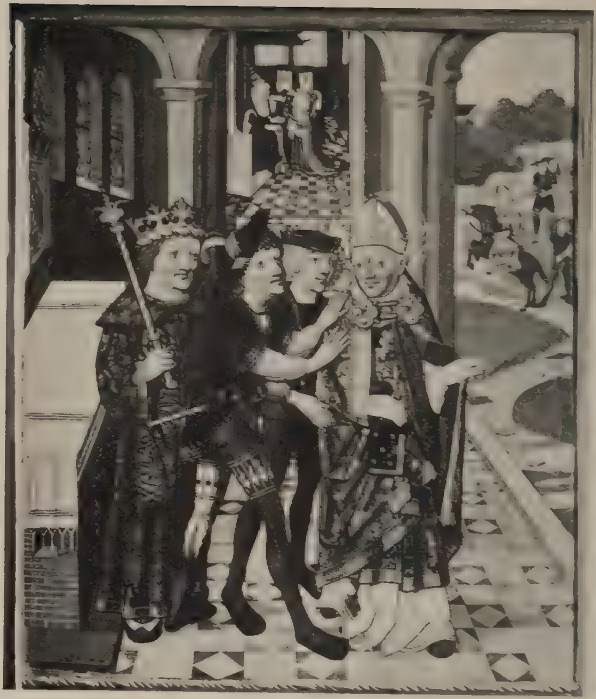

Fig. 2. The Council at Northampton (late fifteenth century). St. Jürgen, Wismar

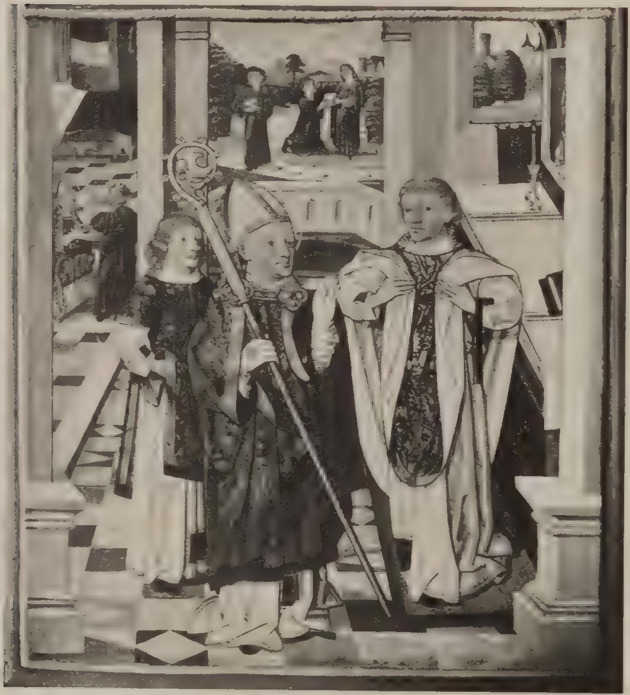

Fig. 3. The Story of the Illiterate Priest (late fifteenth century). St. Jürgen, Wismar

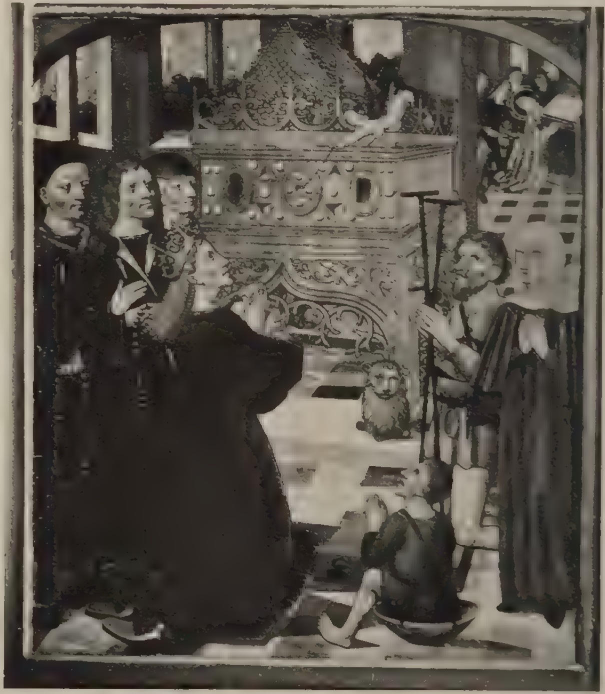

Fig. 4. King Louis VII of France at the tomb of St. Thomas Becket (late fifteenth century). St. Jürgen, Wismar

Published by the Society of Antiquaries of London, 1933

whether the usage of the late twelfth century would allow of his having been described as 'Sanctus' in such circumstances; and, moreover, the very obliteration of intervening words suggests action in conformity with Henry VIII's edict against St. Thomas Becket, which resulted, as is well known, in the cancellation or erasure of the name of St. Thomas Becket in countless manuscripts. Personally I imagine that the inscription originally ran, say, Scs THOMAS MARTYR PONTIFEX; and we need feel all the less hesitation in identifying this figure with St. Thomas Becket, as he is referred to in terms of great eulogy lower down on this very page. Dating as it does from perhaps only twenty or thirty years after the archbishop's death, this would obviously be a most important iconographic document if the view here put forward be correct. The tallness of the archbishop in relation to the other figure is here very striking, but that may be mere convention; and the slimness, the long nose, and the straightly featured face of the writer of the *Thomas Saga* are all here. Moreover, for all the schematism, the figure has an undoubted individuality of character.

These considerations acquire a peculiar value and significance when we come to considering the next example which I should like to discuss. This is a large stone bas-relief which, although mentioned as far back as 1719 by Dr. Harris,[1] some eighty years later discussed in the columns of the *Gentleman's Magazine*,[2] and again shortly afterwards noticed by Edward Hasted[3] and Zachariah Cozens,[4] has subsequently, so far as I can make out, been almost completely overlooked by archaeological research. I owe it entirely to the present vicar of Godmersham, near Canterbury, Dr. S. Graham Brade-Birks, not only that my attention has been drawn to this piece, but that I am able to-night to exhibit a full-size cast of it.

The present location of this bas-relief appears from the illustration here shown (pl. XLIV, fig. 3), which reproduces a photograph of Court Lodge, Godmersham, nowadays a manor house belonging to Lord Lewisham, and incorporating portions of quite early medieval date.[5] The history of this building indeed takes us as far back as 820, when it, or as I should rather say, an early predecessor of it, was given to the monks of Christ Church, Canterbury, by Bornulphus, king of the Mercians. The bas-relief is let into the wall, at considerable altitude from the ground, so the difficulties under which Dr. Brade-Birks had to prepare the cast will be readily appreciated. The bas-relief was, however, moved to its present position only in comparatively recent times, exactly when I am afraid I do not know. Previously, as may be seen from the engraving given by Cozens and dating from 1792 (pl. XLIV, fig. 2), it occupied a niche above the door in a porch towards the other end of the house—a porch which has been pulled down since. It is said that Court Lodge before the Reformation 'was used as a summer resort or convalescent home by the priors of Canterbury, who maintained a chantry priest here',[1] and in such discussions of the bas-relief as have taken place, the names of Archbishop Arundel (1397–1414), Prior Goldston (1449–68), and Prior Chillenden (1392–1411) have been put forward as supplying the key to the identity of the figure here represented. The neighbouring church of Godmersham is dedicated to St. Lawrence and that, I imagine, rules out any connexion between this figure and the Patron Saint of Godmersham Church. The immediate successor of St. Augustine at Canterbury was, of course, a St. Lawrence; but I think only one dedication to him has been traced, so he can, I should imagine, be left out of account. I know of no reason why the St. Lawrence to whom Godmersham Church is dedicated should not be the Roman martyr.

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[1] John Harris, *The History of Kent*, London, 1719, p. 132.

[2] *The Gentleman's Magazine*, vol. lix, 1789, pt. i, pp. 334 and 420. See also *ibid.*, March, 1810, pl. II, p. 209.

[3] Edward Hasted, *The History and Topographical Survey of the County of Kent*, Canterbury, 1790, vol. iii, p. 258.

[4] Zachariah Cozens, *A Tour Through the Isle of Thanet*, London, 1793, p. 253 and plate v.

[5] On the architectural features of this edifice, compare T. Hudson Turner, *Some Account of Domestic Architecture in England*, Oxford, 1851, p. 150 sq., who rightly remarks that the bas-relief is 'rather earlier in character' than the main part of the building, as now existing, which is of the thirteenth century.

Let us now examine the bas-relief itself (pl. XLV, fig. 1), with a view to discovering what it tells us about its period and subject. It is, on the whole, comparatively well preserved, in spite of the fact that it has been exposed to the weather for centuries. The effigy (24 in. high) is placed under an arched canopy, supported by two twisted columns, and above, on the front of the canopy, some architectural details in the form of smaller arcades also appear. The figure, seen at full length, is seated on a cushioned seat and holding the pastoral staff with his left hand, imparts the benediction with his right. On his head is a mitre and above his chasuble he wears a pallium very clearly visible, and with the crosses on it most distinctly seen, so there cannot be any doubt that the person represented is an archbishop.

Again, as to the style of this work, its closest affinities in English sculpture are I think towards the end of the twelfth century: the figure, seated facing under a semicircular arcade supported by twisted columns, is very much like what we find, for example, in the lead font at Dorchester which has been dated about 1170.[2] If, then, we have here the figure of an archbishop enthroned in the act of blessing, set up in the immediate vicinity of Canterbury towards the end of the twelfth century, I think there is on the face of it a very considerable probability of its being St. Thomas Becket; and it is important to note that the whole mode of presentment obviously suggests some definitely individualized character, not a figure of a more generically emblematic character, such as I cannot help feeling attaches to the figure of an archbishop sometimes thought to be St. Thomas Becket on the Romanesque tympanum at Barfreston. And under these circumstances, a resemblance which I submit is undoubtedly present with the Cambridge illumination becomes very significant: in the general proportions and lineaments of the face, but especially in the large eyes and angular eyebrows, the mouth and the beard, that resemblance is so marked, bearing in mind the then existing conventions of portraiture, as to lend very forcible colour to the assumption that this is an effigy of St. Thomas Becket. Of other early English effigies of St. Thomas Becket which are of an at any rate relatively portrait-like character, there are yet four wall-paintings to be mentioned, and in each case it may be contended that there is at least nothing definitely to contradict the identification of the Godmersham archbishop with St. Thomas Becket. All the paintings to which I refer date from the thirteenth century, and of two I have spoken before: one is the single figure in the church of Hauxton, near Cambridge,[1] and the other the rendering of the martyrdom in the church of Bramley, in Hampshire.[2] Then there is yet the splendid wall-painting in the church of Black Bourton in Oxfordshire, which I am enabled to reproduce for the first time from the admirable water-colour of it done by Professor Tristram (pl. XLV, fig. 2); and there is, too, the effigy painted on the wall of Abbots Langley church, Hertfordshire.[3]

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[1] Sir Charles Igglesden, *A Saunter through Kent*, vol. xii (n.d.), p. 10.

[2] Reproduced in Prior and Gardner, *An Account of Medieval Figure-Sculpture in England*, Cambridge, 1912, fig. 159, p. 174.

If, then, this bas-relief at Godmersham be, as I submit it probably is, the earliest English sculptured effigy of St. Thomas Becket surviving, done possibly by an artist who had seen the archbishop when alive, then this circumstance adds, of course, enormously to the interest of what is in any case a very notable example of English twelfth-century sculpture. And I can only express the hope that before long this bas-relief may find some more sheltered resting-place, for choice in the neighbouring church of Godmersham which, even without it, in several respects offers much to attract the attention of the archaeologist.

It is interesting to contrast with these English effigies of St. Thomas Becket a fresco in Italy—one which occurs on the inside of the Campanile of the priory of St. Thomas of Canterbury lying between Arco and Riva on the

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[1] Reproduced in Borenius, *St. Thomas Becket in Art*, pl. II, fig. 3.

[2] Reproduced *ibid.*, pl. XLIII, fig. 1; and in *Archaeologia*, vol. lxxix, pl. XXII, fig. 3.

[3] Reproduced in *The Times*, Feb. 8, 1933.

Lago di Garda, and founded as far back as 1194. The fresco (pl. XLIV, fig. 4) is, however, probably more than a century later: it has been considerably injured, but enough remains for us to make out that St. Thomas is here shown comparatively youthful, beardless, mitred, and with pallium, a book in his left hand, and a pastoral staff in his right.[1] The diffusion of the cult of St. Thomas Becket in Italy is indeed a subject of great interest: you come across the English saint all over the peninsula, and to the list of churches dedicated to him, which I have noted previously, I can now add one in Naples, built before 1333, but at present only containing very little material (of the eighteenth century) towards the iconography of St. Thomas Becket. Etymologically it is interesting to note that the Neapolitan vernacular has transformed the name of the church into San Tommaso in Conturbino or else into San Tommaso dei *Tre a barile*—one wonders whether the latter phrase can have any connexion with his position as patron saint of the wine coopers which he held notoriously in Venice.[2] Again, in the church of Santa Maria Novella in Florence, the first bay of the east choir-aisle formerly contained an altar dedicated to St. Thomas Becket. This altar was the property of the Minerbetti family which claimed descent from St. Thomas's exiled kindred, the Minerbetti coat of arms, Gules, three swords pilewise argent, the hilts in chief, being interpreted as an allusion to the swords of the slayers of St. Thomas converging on his head. Vasari mentions a 'tavola' by Gaddo Gaddi over this altar; he does not describe the subject, and the picture has vanished long ago; but it may, of course, have contained an effigy of St. Thomas Becket.[3] A great centre of the cult of St. Thomas in Italy was then, as I already had occasion to remark, the ancient papal city of Anagni. It is therefore interesting to find in the Cathedral of Anagni a Limoges châsse, of usual type, with the murder of St. Thomas represented on the front (two assailants appearing) and the burial on the top of the châsse. I say this is interesting because it is extremely difficult at the present time to point to any documentary evidence of a connexion between St. Thomas Becket and the many Limoges châsses which are usually interpreted as giving illustrations of his martyrdom. In certain not very numerous cases it looks as if such a connexion could not be upheld—I am referring more particularly to the Sens and Meredith châsses.[4] I have no doubt in my mind that most of the Limoges châsses in question do relate to St. Thomas, but any piece of early evidence pointing that way is undoubtedly very welcome.[1] In the manuscript collections of the eighteenth-century antiquary William Cole, now in the British Museum (Add. MS. 5481), there is an accurate description and a not very accurate drawing of a Limoges châsse at that time in the Strawberry Hill collection (pl. XLVI, fig. 1). These data enable us to identify the châsse with one now in the collection formed by the late Mr. Leopold Hirsch of London (pl. XLVI, fig. 2), and then, as now, this châsse lacked part of one side and end. Now when Cole, in 1765, visited Paris he noted in the church dedicated to St. Thomas Becket in 1187, and since known as St. Thomas du Louvre, a shrine on the wall resembling the one at Strawberry Hill.[2] The church of St. Thomas du Louvre no longer stands, and what has become of the shrine seen by Cole in 1765 I do not know, but Cole's note suffices to establish an iconographically very valuable connexion. I may add that, according to the manuscript notes of Cole, Horace Walpole had his châsse 'out of the collection of Thomas Barnet (Barret?) of Kent Esq.', and this, too, is an important historical clue. For such objects as Limoges châsses there was, in the middle of the eighteenth century, no such thing as an international market—such objects were then extremely unlikely to travel from one country to another: so we may confidently conclude that the châsse in the Leopold Hirsch collection is one of the few St. Thomas Becket châsses for which an English provenance may be claimed—indeed, the chances are that it originally belonged to a church in Kent. An association with St. Thomas Becket's own county (by adoption) would, so far as I am aware, be an absolutely unique distinction for a Limoges châsse. A fine example, also with two murderers, and a scene of the burial on the roof (pl. XLVI, fig. 3), is now in the collection of Herr Hans Bossard, of Lucerne.

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[1] For a photograph of this fresco I am indebted to Dr. Giuseppe Gerola of Trent.

[2] Compare Gennaro Aspero Galante, *Guida Sacra della Città di Napoli*, Naples, 1872, pp. 320–1. The church was restored in 1832. Two eighteenth-century paintings relating to St. Thomas Becket are to be found in it: one (formerly above the high altar) represents the Madonna with SS. Thomas Becket and Thomas Aquinas; the other St. Thomas Becket alone.

[3] Compare J. Wood Brown, *The Dominican Church of Santa Maria Novella at Florence*, Edinburgh, 1902, p. 121 sq.

[4] Compare Borenius, *St. Thomas Becket in Art*, pp. 86–7.

Among addenda to the iconography of St. Thomas Becket may here be mentioned the figure of the archbishop occurring on an inlaid tile of early fourteenth-century date, found near the site of St. Bartholomew's Hospital, Rye: and it is a matter of note in this connexion that Winchelsea church originally was dedicated to St. Thomas Becket.[3] The fact that church bells often were placed under the invocation of St. Thomas is well known: on the bell at Lyneham, Wiltshire, dating from c. 1450, there is a figure in relief of St. Thomas (fig. 3, p. 186), standing, in the act of blessing.[4]

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[1] For the loan of a reproduction of the Anagni châsse I am indebted to Dom Roger Hudleston.

[2] William Cole, *A Journal of my Journey to Paris in the year 1765*, ed. F. G. Stokes, London, 1931, p. 151.

[3] See Leopold A. Vidler, in *Sussex Archaeological Collections*, vol. lxxiii, 1932, p. 97.

[4] See H. B. Walters, *Church Bells of Wiltshire*, fig. 91, p. 126. Block reproduced by permission.

Up to now I had not been able to point to a single early Netherlandish panel picture representing the martyrdom of St. Thomas. I am therefore very pleased to be able to illustrate an excellent example by an anonymous Flemish master of about 1480 (pl. L, fig. 1), in an English private collection, showing in the foreground the figures of the Virgin and the infant Christ walking, while in the background are seen, on the right, the Massacre of the Innocents, and on the left, the Murder of St. Thomas Becket by three assailants, the two events thus illustrated occurring upon consecutive days of the calendar—December 28 and 29.

The very complex play of legend and folk-lore round the figure of St. Thomas Becket has been thoroughly analysed in a book by Dr. Paul A. Brown, published at Philadelphia in 1930.[1] Among surviving works of art, one which reflects with particular vividness the sequence of real and imaginary events, which in popular imagination centred round St. Thomas Becket, is the North German late fifteenth-century altar-piece in the church of St. Jürgen, at Wismar, in Mecklenburg. I have treated of this altar-piece in my book on *St. Thomas Becket in Art*, but I have lately had the St. Thomas Becket pictures occurring in it photographed on a large scale,[2] and they deserve to be analysed at some length, in view of the unusual iconographic importance which attaches to them.

The first of the series (pl. XLVII, fig. 1) has the scene of the consecration of St. Thomas in the foreground, while in the background is seen a rendering of St. Thomas washing the feet of thirteen poor men. This is quite clear: but who is the person with long hair wearing a crown on a torse who, half seen on the right behind the curtain in the centre, watches the scene of the consecration? Is it a man or a woman? If a man, one could but surmise that he is meant for Henry II; but the crown and the face are unlike what we find in a figure later on in this picture chronicle which is undoubtedly meant for Henry II, so I am wondering whether this figure might not be identifiable with St. Thomas Becket's mother, the mythical Saracenic princess, of whom the popular legends have so much to tell, and whose memory survives to this day in the 'demi-moorish woman' in the crest of the arms of the Brewers' Company, granted in 1468. She is said to have foretold the future greatness of her son, so she would here be shown watching the realization of her prophecy. Indeed, the fact that this person wears the crown on a torse—which in medieval art is a usual indication of Saracenic origin—may be said definitely to identify the character here depicted with 'Mathilda'.[3]

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[1] *The Development of the Legend of Thomas Becket*, p. 302.

[2] I am much beholden to Herr F. A Martens, of Rostock University, for his good offices in this connexion.

[3] The significance of the torse has been pointed out to me by the Rev. E. E. Dorling, F.S.A.

In the next picture (pl. XLVII, fig. 2) the main trend of the story is quite clear: in the foreground is a very condensed rendering of the Council at Northampton, with Henry II, three courtiers, and St. Thomas Becket, while in the background is St. Thomas kneeling before Pope Alexander III, at Sens, after his successful escape. But what is the scene in the middle distance? Here we have in a landscape a king accompanied by a man, and nearer to the spectator another man holding his sheathed sword in one hand, and pointing with his right to St. Thomas who is riding away on a galloping horse. I have suggested previously that this might be a somewhat cryptic rendering of the episode at Strood, when the crowd cut off the tail of Becket's horse: but there is really no indication of any such action taking place, and the scene would, moreover, here be out of its chronological sequence. What I think we see is an episode which comes in naturally between the Council at Northampton and the arrival of St. Thomas at Sens—the escape of St. Thomas from Northampton, when the great horseman rode away through the night to Sandwich.

The next picture (pl. XLVII, fig. 3) is, I think, devoted to one single story: that of the illiterate priest who would only chant the office of the Virgin, and hence was suspended by St. Thomas. That is, I have no doubt, the scene in the foreground: the archbishop, accompanied by an acolyte, addresses a priest who is shown in the act of taking off his mass vestments. In the background there follows the sequel: first, the suspended priest kneeling before the Virgin who hands him a box; next, the priest walking away, holding the box in both hands, and next, in the interior of the bedroom of St. Thomas, the priest handing the box to St. Thomas. We know what the box contained—the hair-coat of the archbishop, the message of the Virgin to St. Thomas being: 'Tell him that by the love of her who sewed the hair-coat which he laid aside at night he should find in it a silk thread and by that sign restore to you the privilege of saying mass.' This legend is depicted in several illuminated manuscripts, and was probably also one of the episodes occurring in the series of lost Romanesque wall-paintings in Trier cathedral. The present is, however, the only surviving example of a rendering of it in an easel painting.

Finally, the fourth picture at Wismar (pl. XLVII, fig. 4). Here the murder of St. Thomas, with four assailants appearing, is reduced to an incident of tiny proportions in the background, while in the foreground we have a number of pilgrims, cripples, and others, gathered round the shrine of St. Thomas. Prominent among the pilgrims is a king, and his identity is, I think, made particularly clear by the action of an angel descending from above, and pointing with a stick to a large jewel in the shrine. Clearly this must be King Louis VII of France who came to Canterbury in 1179 to return thanks for the recovery of his son, among his offerings to the shrine being a magnificent gem, subsequently shown to pilgrims as the 'regale of France'. It would clearly be impossible to expect from this picture an archaeologically exact delineation of the shrine of St. Thomas set up in 1220: but it is obvious from such rather more dependable records of the shrine as we possess, that the painter did know something of what the shrine at Canterbury looked like.[1]

I think it will be agreed that these pictures are of some considerable importance to the iconography of St. Thomas Becket, and fully deserving of the analysis which I have ventured to give of them.

In the matter of elaborate series of scenes from the life of St. Thomas I can add but little to the material already made known. As regards the sculptured cross of 1516 in Rampisham, Dorset, of which I have spoken before,[2] I now think it likely that—as suggested as far back as 1863 [3]—the weather-worn bas-reliefs on it represent the Murder of St. Thomas, the Burial of the Saint, the Penance of Henry II, and the Visit of Louis VII to Canterbury. Mr. L. Birley has kindly placed at my disposal the photograph taken by him of the scene of the Penance, here reproduced (pl. L, fig. 2). I can further point to a fragmentary English embroidery of the second half of the fourteenth century to which my attention has been drawn by M. Marquet de Vasselot, and which lately was exhibited by its owner, Signor A. Loewi, of Venice, at the Gewerbemuseum in Basel (Nos. 92–3). The orphrey of which this fragment originally formed part must have shown a whole series of scenes from the life of St. Thomas, for what we now see are two episodes which are not chronologically in close connexion—St. Thomas kneeling before Pope Alexander at Sens, and the Martyrdom (with four knights present, one of them striking St. Thomas's head with his sword). Speaking of embroideries, I should like to draw attention also to a very interesting though fragmentary English fifteenth-century example now in the collection of Sir William Burrell (pl. XLIX, fig. 1), in which the martyrdom

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[1] Since I am on the subject of Germany, it may be mentioned that the name of St. Thomas of Canterbury occurs in a South German calendar (Eichstätt) as far back as 1198; and I have often wondered whether a connexion could be traced between the Patron of the Brewers' Company in London and beer-brewing in Munich. I am assured, however, by a specialist on the latter subject, Kommerzienrat F. Sedlmayr, that no such connexion exists. There is a 'Thomas bräu' in Munich, but it only dates from the last century and uses in its label a bust profile of St. Thomas the Apostle. Mr. A. Dru calls my attention to a sculptured effigy of St. Thomas Becket, forming part of the great Baroque High Altar of the Cathedral of Gurk in Carinthia, the work of the Gurk wood-carver Michael Hoenell, dating from 1626-32. It shows St. Thomas with a biretta on his head, holding a palm branch and a patriarchal cross.

[2] *Archaeologia*, vol. lxxxi, p. 27; *St. Thomas Becket in Art*, p. 81.

[3] J. Hutchins, *The History and Antiquities of the County of Dorset*, ed. Shipp and Hodson, vol. ii (1863), p. 694.

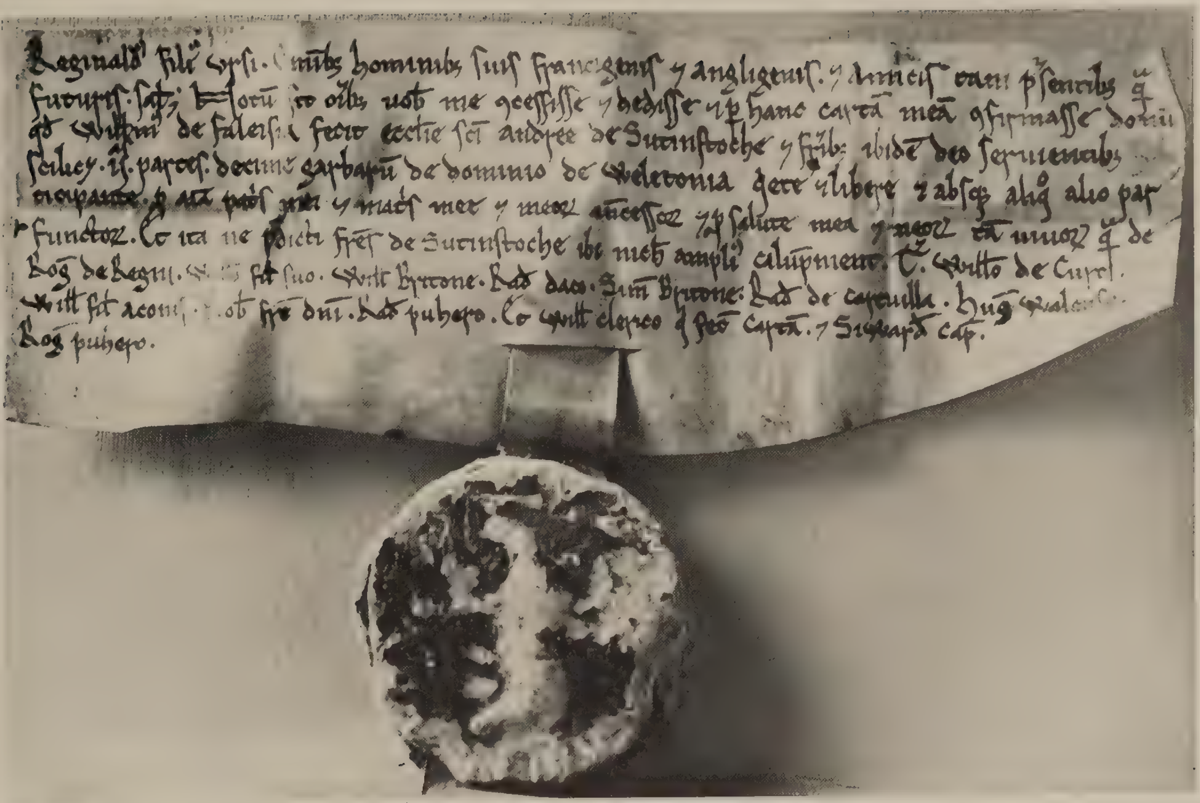

Fig. 1. Document having Fitzurse seal appended. Eton College Library

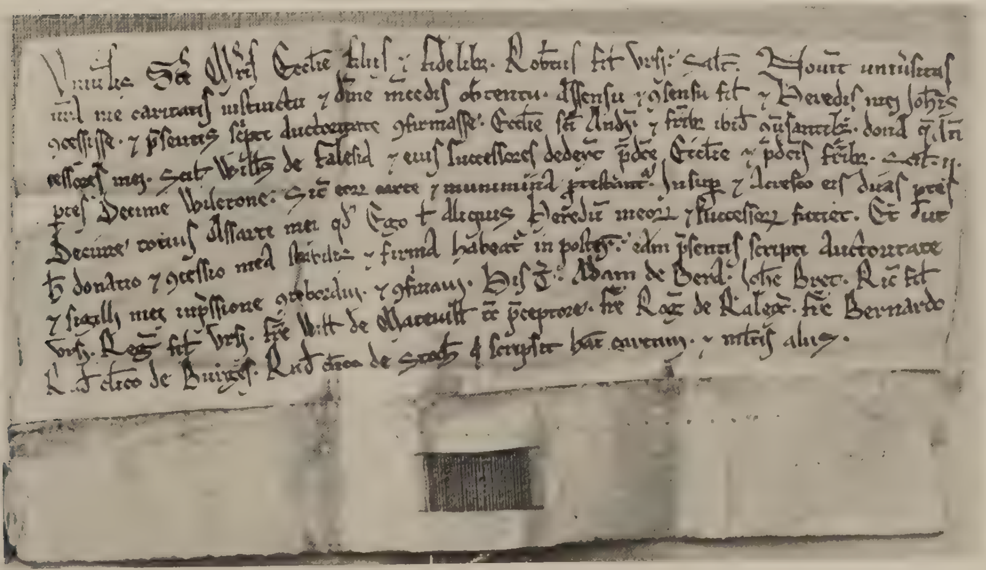

Fig. 2. Document having Fitzurse seal (fig. 1, p. 181) appended. Eton College Library

Published by the Society of Antiquaries of London, 1933

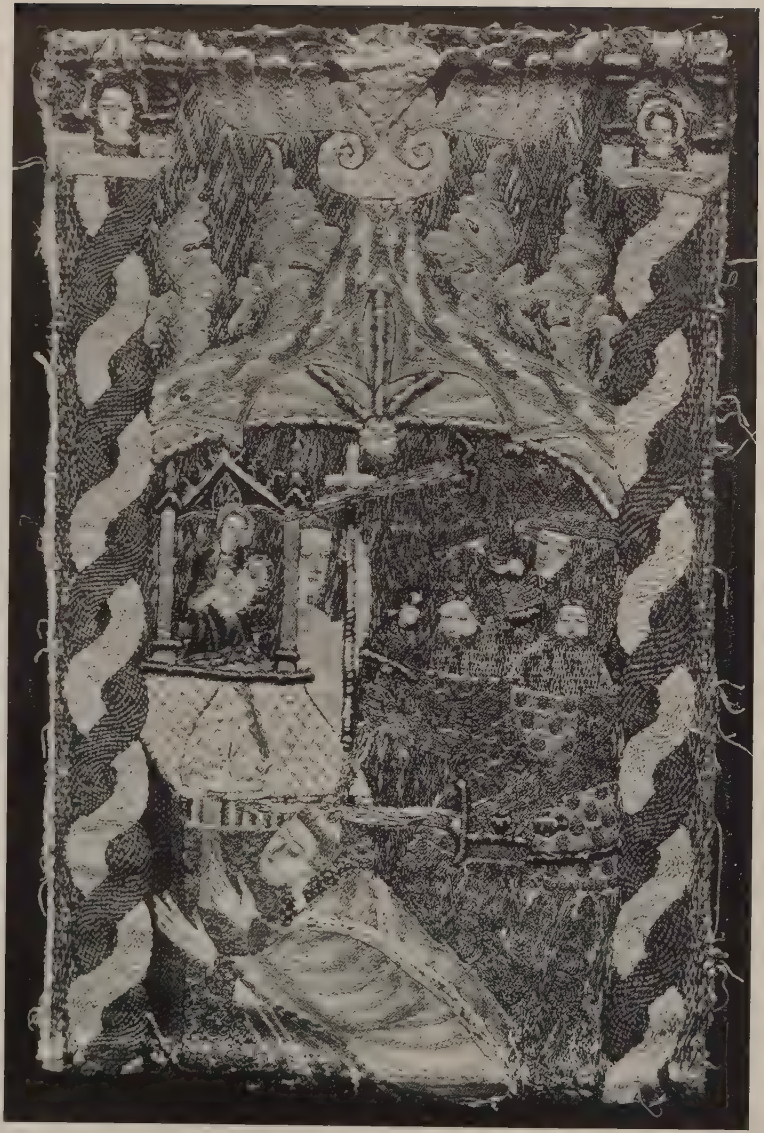

Fig. 1. English embroidery, fifteenth century. Sir William Burrell

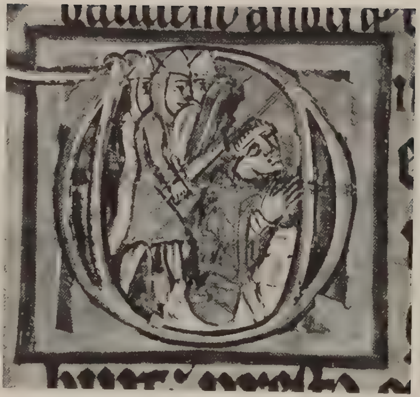

Fig. 2. Illumination, Lesnes Missal, early thirteenth century. Victoria and Albert Museum

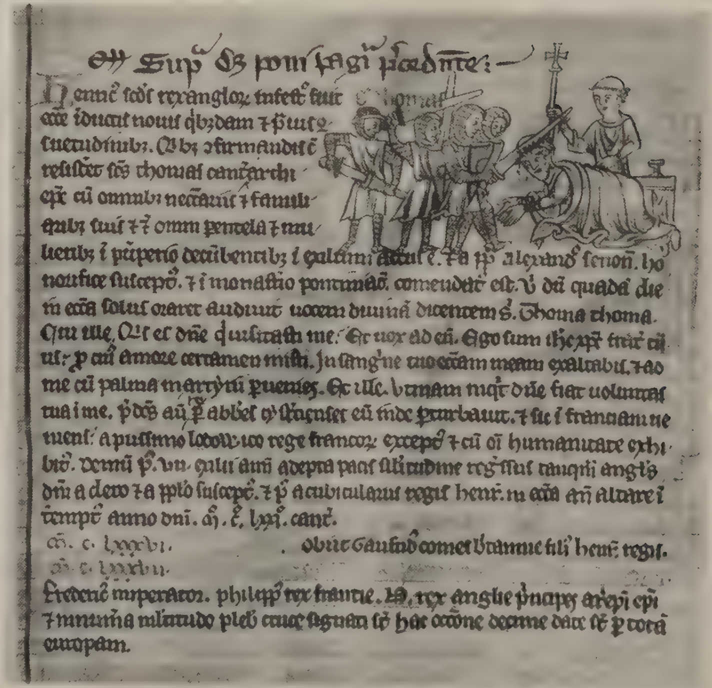

Fig. 3. Illumination, *Compendium Veteris Testamenti*, by Petrus Pictavensis, *c.* 1250. Eton College Library

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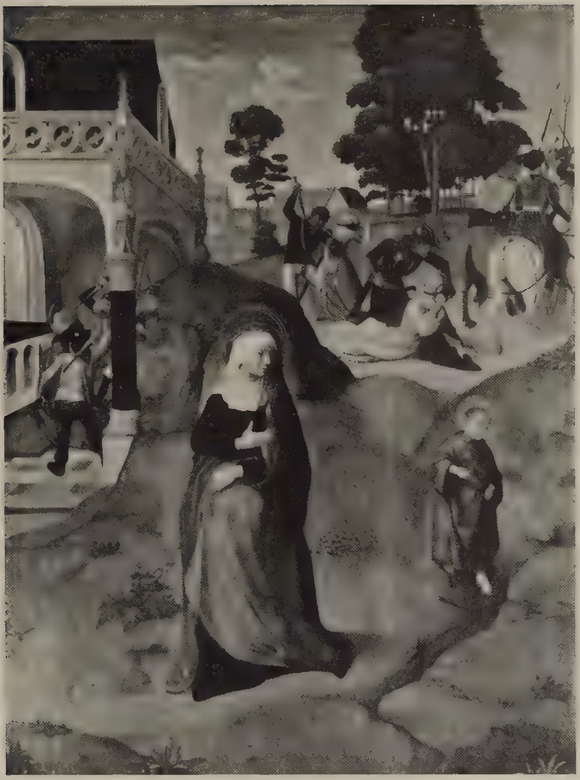

Fig. 1. Flemish panel picture, *c.* 1480
English private collection

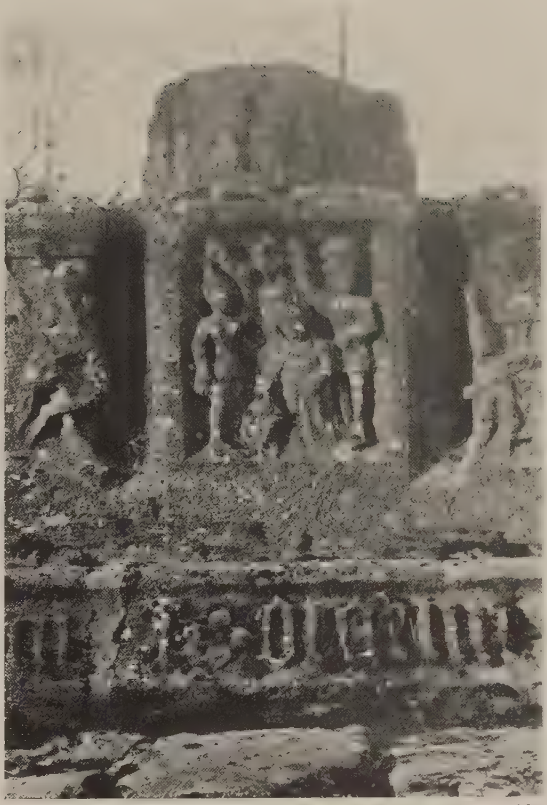

Photo. Mr. L. Birley

Fig. 2. Rampisham, Dorset. Cross-base

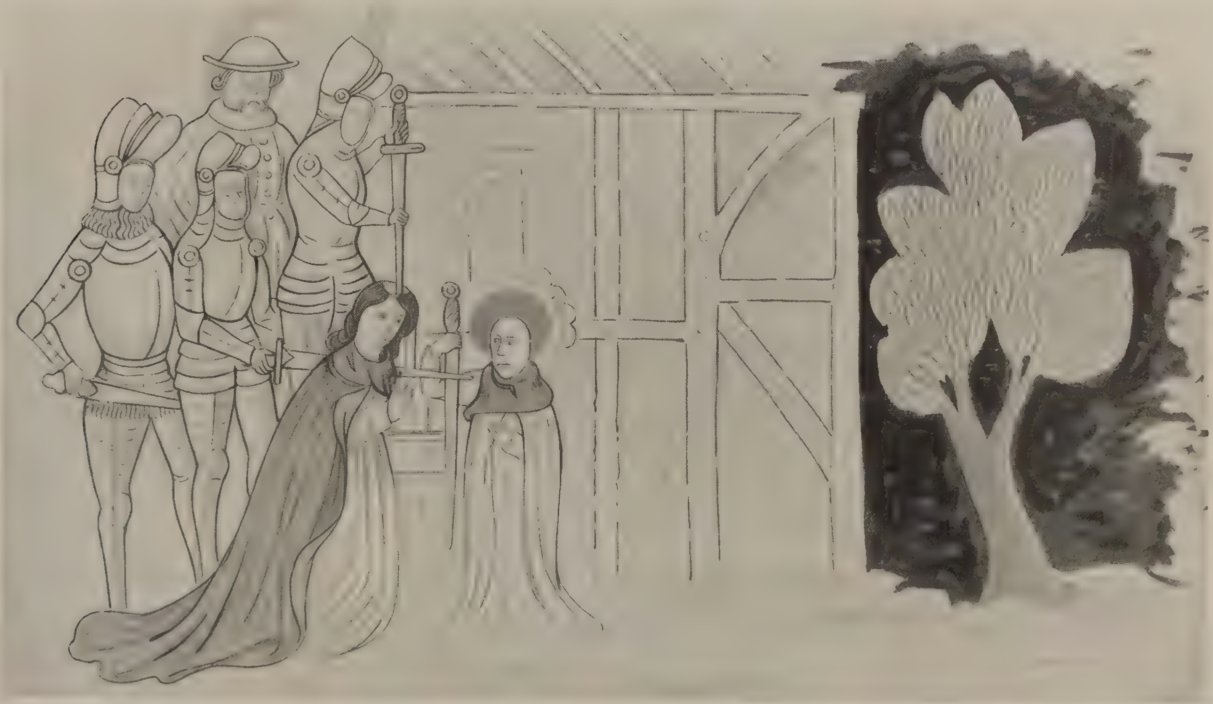

Fig. 3. Wall-painting, *c.* 1400, subsequently repainted.
East Stonham, Suffolk

Published by the Society of Antiquaries of London, 1933

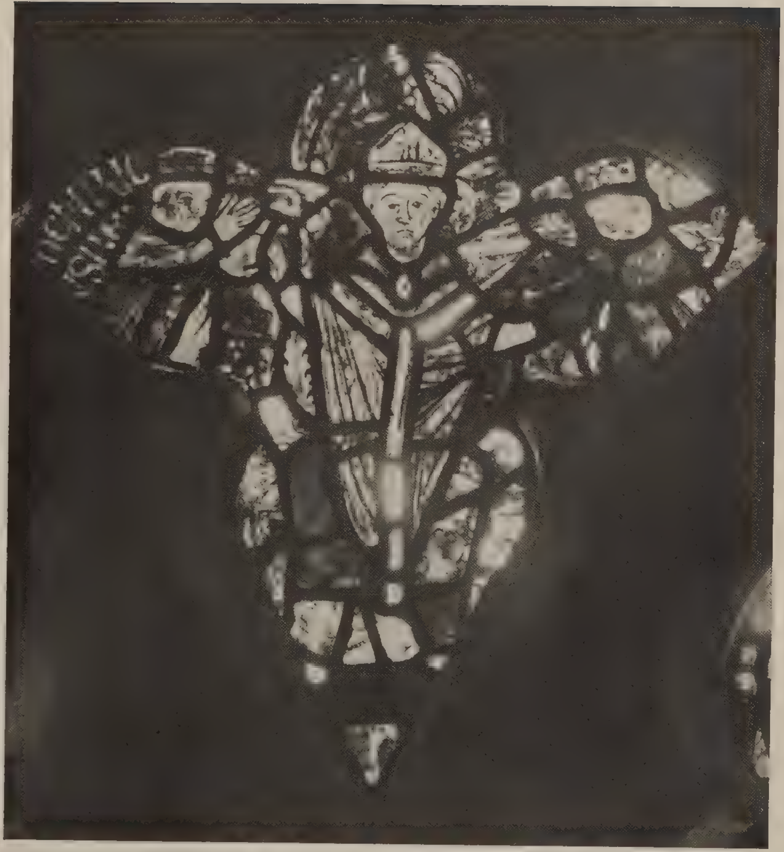

Fig. 1. Stained glass panel, *c.* 1220–30
Nackington Church, Kent

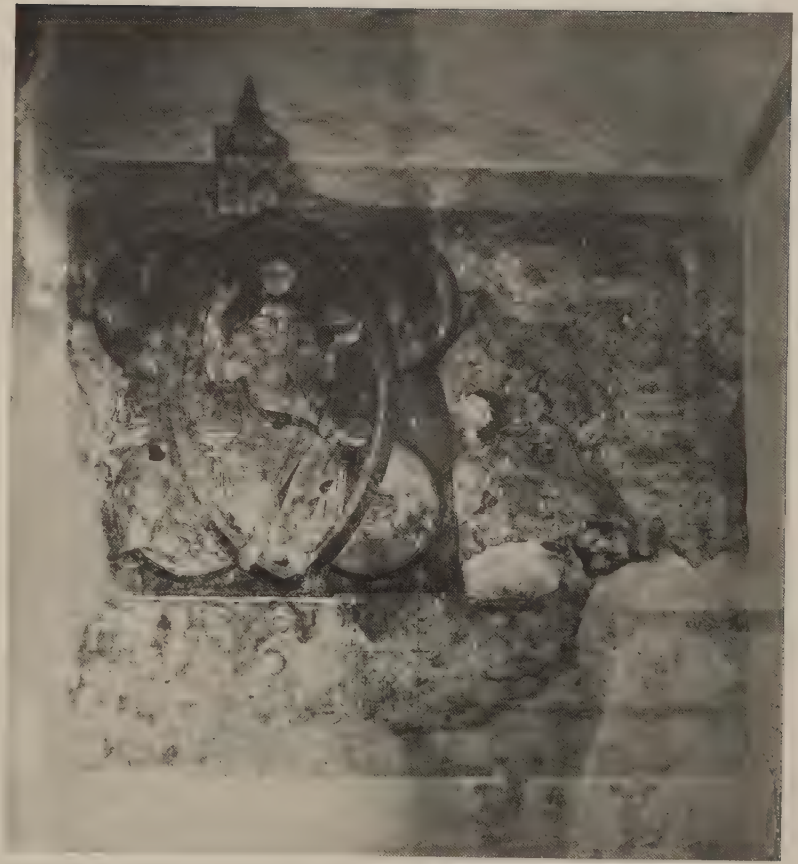

Fig. 2. Wall-painting, Eastbridge Hospital, Canterbury, early thirteenth century. (From an old photograph)

Published by the Society of Antiquaries of London, 1933

is represented.[1] The actors in the scene include Grim and four knights, and one of these is notable as displaying both on his shield and his tabard that heraldic device of a field semé of roundels which occurs both in the destroyed thirteenth-century wall-painting once at St. John's, Winchester, and in the fourteenth-century stained glass in Christ Church Cathedral, Oxford. Who this device pertains to is not quite easily determined: at Winchester it may stand for Moreville, which it probably does not do at Oxford. The subject of heraldry brings me to mention two very interesting items at Eton: namely, two records bearing the seal of the Fitzurse family. One of these records (pl. XLVIII, fig. 1) is a confirmation by Reginald Fitzurse of the grant of William of Falaise to St. Andrew of Stoke (the priory of Stogursey, i.e. Stoke Courcy, co. Somerset)[2] of part of the tithes of Williton, co. Somerset. Among the witnesses are William de Courci and Robert Fitzurse. The seal is not at all in good condition, but the bear is quite recognizable. The other seal (fig. 1) is slightly better preserved than the first one, and the inscription round it is visible though difficult to decipher. The document (pl. XLVIII, fig. 2) to which the seal is attached is a confirmation by Robert Fitzurse with the consent of John, his son, to the priory of St. Andrew of Stoke of the gifts of his ancestors, William of Falaise and others, viz. tithes at Williton and part of the clearing to be made there. Among the witnesses are Richard Fitzurse, Reginald Fitzurse, and William de Malevill, Preceptor of the Knights Templars. The deeds are undated, but the fact that William de Courci died in 1176 provides a definite *terminus ante quem* for one of the documents,[3] and the other must, from its similar character, be of very nearly the same date.

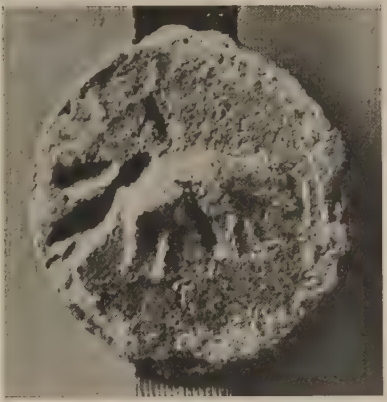

Fig. 1. Seal appended to the document in pl. XLVIII, fig. 2.

Of other material bearing on the iconography of St. Thomas Becket, and previously unrecorded by me, I can only refer to some of the more important items. Among wall-paintings, there is a very much injured example of the thirteenth century at Honington in Suffolk, to which Dr. Montague James has kindly drawn my attention. Mention may also be made of a wall-painting at Eastbridge Hospital in Canterbury, to which I have referred in the past as being almost entirely faded away. Of this I have fortunately been able to find an old photograph (pl. LI, fig. 2), proving that much more of the composition could be seen at the time, and that the painting of Christ in his majesty surrounded by the symbols of the evangelists, which is still fairly clearly visible, was painted over the subject of the martyrdom, which included a representation of the tower of the cathedral. In the prominence thus given to the architectural setting, this composition conforms with the tradition also exemplified in the lost painting at St. John's at Winchester; and since the *Christ in Glory* is certainly not much later than the mid-thirteenth century, it follows that the painting underneath must be of fairly early date, probably very early thirteenth century. From the point of view of portraiture, however, this turns out not to be a document of great importance, since there is clearly great conventionalism in the treatment of the four faces which can still be made out—St. Thomas shown as relatively youthful, Grim on the left of him, and three knights, one of them brandishing his sword. The figures are painted over a boldly marked masonry patterning, a custom very frequent in England during the thirteenth century, and to be paralleled for example not very far from Canterbury in the church of Capel.

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[1] This example has very kindly been brought to my notice by Mr. Charles R. Beard.

[2] Compare on this the priory which was suppressed after the Hundred Years War, the estates going to the endowment of the College of St. Mary at Eton, *V.C.H.*, *Somerset*, vol. ii, p. 169.

[3] It was he who insulted Becket at Northampton in 1164 by commandeering his lodgings.

In the church of East Stonham, Suffolk, is a very interesting wall-painting of the martyrdom (pl. L, fig. 3), originally perhaps of the time about 1400, in which the figure of the archbishop, in obedience to Henry VIII's decree of 1538, has been transformed into a female saint [1]—an ingenious device so far as I know not paralleled elsewhere, though one would think it ought to have occurred to many people in the days of the official war against St. Thomas.

Among illuminations I should here like to record one which occurs in the Lesnes Missal, formerly in the Yates Thompson collection and now in the Victoria and Albert Museum. The missal, it may here be recalled, was executed for Lesnes Abbey, Erith, Kent, founded in 1178 by Richard de Lucy, sometime chief justiciar of England, under a dedication to St. Mary and St. Thomas of Canterbury, then canonized but five years ago. Though this illumination (pl. XLIX, fig. 2) is small (being enclosed within an initial D), and of no particular iconographic importance (there are three knights, the foremost of whom strikes and cuts into the head of St. Thomas with his sword), it is of interest as being rather an early illumination of the murder, dating as it does from the opening years of the thirteenth century. Then there is a very interesting pen-and-ink drawing of the murder occurring in an Eton manuscript of the *Compendium Veteris Testamenti* of Petrus Pictavensis which volume is also among the Eton exhibits here to-night. This manuscript is an English copy of the work, a short universal chronicle, extending the narrative to 1241; Petrus Pictavensis died about 1200. The drawing (pl. XLIX, fig. 3), of about 1250, is a composition of considerable dramatic liveliness, with Grim and four knights present, and presents several features of affinity to the very nearly contemporary drawing by Matthew Paris in his *Historia Maior* in Corpus Christi College, at Cambridge. Finally, I may mention yet another Eton item—a manuscript Chronicle of the World in roll form, up to the year 1420, introducing in the appropriate context a bust of St. Thomas Becket in a roundel—the rendering being iconographically of some interest by showing the sword of the murderer cutting across the mitre of the saint.

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[1] See H. A. Harris, in the *Proceedings of the Suffolk Institute of Archaeology and Natural History*, vol. xix, 1927, pp. 297–9 and pl. 1 (the block here reproduced by permission). The Rev. Christopher Woodforde has kindly called my attention to this painting; I am also indebted to him for information concerning the Harpley stained-glass effigy and the subjects described by Gervase Holles.

From the domain of stained glass I am able to refer to a little known and never before reproduced example of the highest importance from a church in Kent: the composition which occurs in the upper part of a window in Nackington church (pl. LI, fig. 1). Through the kindness of the Rev. R. D. Middleton there has been placed at my disposal a most excellent photographic reproduction of the relevant portion of this window. It shows St. Thomas Becket mitred, in chasuble and with pallium, facing the spectator and being worshipped by two bearded kings—one Henry II, as indicated by the inscription HENRICVS REX, the other one probably meant for Louis VII of France. Beneath the figure of St. Thomas are two lights, fragments of a larger window, that on the left being part of a Jesse Tree, and that on the right representing the marriage at Cana of Galilee. The whole comes from one of the windows in Canterbury cathedral and was only set up at Nackington in the nineteenth century: it is surmised that the chapel at Canterbury was that of St. John the Evangelist.[1] In any case, there can be no doubt either of the identity of the saint, or of the artistic importance of the stained glass, which is of the very finest quality of the period about 1220–30.

In the tracery lights of the west window of the church of Harpley, Norfolk, there occurs, among some good fifteenth-century figures of English ecclesiastics, one of 'Thomas archiepic̄.' I also learn from Mr. Aymer Vallance that in the clerestory of the choir of the cathedral of Freiberg, Saxony, there is a window with a single standing figure representing St. Thomas; while the martyrdom found its place among the subjects depicted in the stained glass of Tournai cathedral.[2]

I have had occasion to remark previously, as is indeed obvious, that iconoclasm in the matter of effigies of St. Thomas Becket was particularly easy when it was a question of stained glass; and it was, I am afraid, by no means only the notorious 'Blue Dick' Culmer who took pleasure, as the immortal phrase goes, in 'ratling down proud Becket's glassy bones'. That England before 1538 must have contained a very large number of stained-glass representations of St. Thomas Becket and scenes from his life is indeed indubitable, and our guesses in this connexion receive a striking confirmation by what survived in certain Lincolnshire churches, as late as the middle of the seventeenth century. Our authority for this is Gervase Holles, whose notes on Lincolnshire churches between 1634 and 1692 contain the following descriptions of stained-glass items relating to St. Thomas Becket:[1]

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[1] Compare A. J. Mason, *A Guide to the Ancient Glass in Canterbury Cathedral,* Canterbury, 1925, p. 56.

[2] Paul A. Brown, *op. cit.*, p. 218.

> *West Rasen.* 'The picture of ye murdring of St. Thomas Bekett. Foure souldiers armed with their swordes bent against him, the foremost of them having upon his shield a Crosse formy Sa. The Archbishop is pictured twice; once in his Pontificalibus with his Crosse advanced, holding in his left hand a chalice. Then again, lower, as despoyled of all his Episcopal attyre, bowing downe, & offering his necke to ye smiters.'
>
> *Severby.* '. . . ye killing of Thomas Becket The pictures of 4 armed men with swordes, he kneeling & holding up his handes, having a Garland about his head; above an Angell having a † mounted above his forehead.'
>
> *Bag Enderby.* '. . . ye picture of St. Thomas Becket receaving woundes from 3 knights there pictured, thrusting their swordes into him.'

Some fragments of stained glass do survive in the first two churches, but these are not I am sorry to say from the scenes just described. It all goes to show, however, once again how enormous must have been the material for the iconography of St. Thomas Becket, which before the Reformation was to be found in England. Try as we may, our imagination probably stands in no relation at all to reality as it once existed. Well might one have thought that Henry VIII attempted the impossible when he set about eradicating the veneration for St. Thomas Becket, and there is plenty of evidence to show that his policy met with considerable opposition. At Eton, for example, as I have learnt but recently, the celebration of St. Thomas Becket went on for fully twelve years after the issuing of Henry VIII's proclamation. It had been the custom at Eton, not only to light a bonfire on the day of the translation, but also to allow extra commons to the scholars, both on the feast of the translation and on that of the martyrdom of St. Thomas: and this custom was persisted in until the autumn of 1551. Only then was a note made in the audit book to the effect that the expenditure should not reappear in the following year, various other feasts being also disallowed.[1] In this fashion, reverence and fidelity to tradition were gradually overcome,[2] and hence, after all these centuries, to reconstruct the position as it originally existed resolves itself into a task as difficult as I, for one at least, find it engrossing.

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[1] See R. E. G. Cole's edition of Gervase Holles's notes, *Lincolnshire Records Society*, vol. i, 1911, pp. 110, 114, 124.

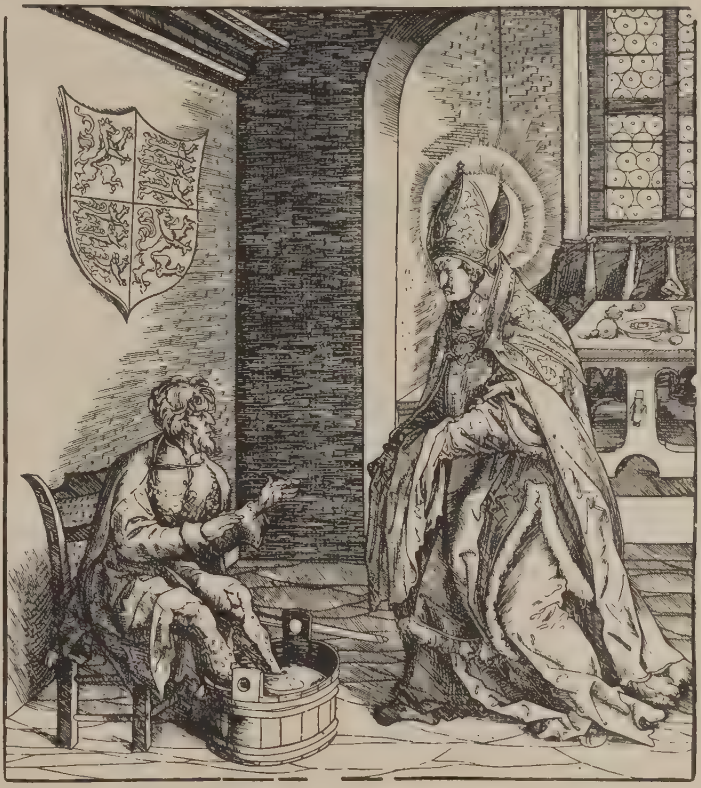

Fig. 2. St. Thomas Becket, from a woodcut of 1517.

POSTSCRIPT

Since the above was set up in type, I have succeeded in tracing an exceptionally interesting early sixteenth-century rendering of St. Thomas Becket, the existence of which has been known to me for some time, though the only reference to it which I have seen in iconographical literature is so brief as to be of but little help. The rendering in question is a woodcut in the series of images of saints which the Emperor Maximilian I caused to be made between 1516 and 1518 from drawings by the Augsburg master Leonhard Beck. The selection of the 123 saints who make up the series is governed by a very liberal interpretation of the concept of relationship with the Emperor himself (‘*Sipp-, Mag- und Schwägerschaft*’); hence the arms of the house of Habsburg (or, a lion rampant gules, crowned azure) are almost invariably introduced into the composition in one way or another. St. Thomas appears under the description ‘Sant Thoman genant von Canndlberg’, ‘Canndlberg’ or ‘Kandelberg’ being usual German variants of ‘Canterbury’ (cf. *St. Thomas Becket in Art*, p. 42 sq.). The woodcut (fig. 2) is the work of the wood-engraver Claus Seman and was ‘presented’ by him on Feb. 28, 1517—this, according to a manuscript note at the back of the wood block, which, together with the others of the series, is still preserved in the Hof (now Staats)bibliothek at Vienna. St. Thomas is shown, in bishop's robes and mitred, in the interior of a room, holding a towel in his hands and approaching a leper who sits bathing his feet in a tub; in a recess in the background, on a dais, is a table with a refection spread. Obviously the scene is intended as an abbreviated illustration of St. Thomas's custom of washing daily the feet of thirteen beggars, and feeding them afterwards—a custom which also has suggested the subject for an incident in the background of one of the Wismar panels (see above, p. 178). John of Salisbury refers to this habit of St. Thomas's as follows:

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[1] These facts have been ascertained for me by Mr. Robert Birley.

[2] An interesting episode of the Marian reaction has lately been pointed out by the Rev. C. Eveleigh Woodruff: the office of St. Thomas Becket was restored to the service-books of Canterbury cathedral in 1555-6 (see *Archaeologia Cantiana*, vol. xliv, p. 25).

In secretiori cellula tredecim pauperum pedes curvatis genibus quotidie abluebat in memoriam Christi, singulis eorum post plenam refectionem victualium quatuor argenteos largiens (Robertson, *Materials for the History of Thomas Becket,* ii, 307).

On the wall on the left is a large coat-of-arms, quartering Habsburg with England. Altogether the coats-of-arms in this series of woodcuts (which includes many English saints) are of much interest and would deserve a special study: they are passed over practically without comment in the most elaborate monograph dealing with the woodcuts which has so far appeared—one written by Simon Laschitzer and published in the *Jahrbuch der Kunstsammlungen des Allerhöchsten Kaiserhauses,* vols. iv and v (Vienna, 1886–7). A reprint of 119 items of the series, from the old wood blocks, was issued at Vienna in 1799 by Adam von Bartsch, who mistakenly attributes the designs for the woodcuts to Hans Burgkmair: the *St. Thomas* is No. 106 in this reprint of the series, which is listed in its entirety as No. 82 among Hans Burgkmair's works in the seventh volume of the *Peintre-Graveur.*

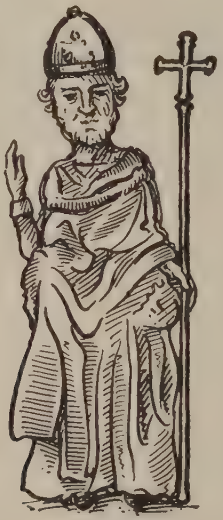

Fig. 3. Figure of St. Thomas Becket in relief on church bell, c. 1450. Lyneham, Wiltshire.

IX.—*The Bronze Spear-head in Great Britain and Ireland.*

By E. Estyn Evans, *Esq., F.S.A.*

Read 23rd March 1933

Any study of British spear-heads of the Bronze Age must be inspired by, and largely based on, the very valuable pioneer work of Greenwell and Brewis, whose handsomely illustrated paper on 'The Origin, Evolution and Classification of the Bronze Spear-head in Great Britain and Ireland' was published in *Archaeologia* for 1909.[1] Indeed, their general analysis of the subject is so masterly and their conclusions so impressive that the paper has perhaps been allowed to pass too long unchallenged. Relatively little was known, a quarter of a century ago, of the continental material, and the close connexions between Britain and the mainland in late prehistoric times were almost unsuspected. Comparative studies have revealed the widespread interchange of various products and ideas in the European Bronze Age; and no one would now go so far as to claim, with Greenwell and Brewis, that 'there can be no doubt whatever that the spear-head in its origin, progress, and final consummation, was an indigenous product of these islands, and was manufactured within their limits apart from any controlling influence from outside'.[2]

Their demonstration of the early appearance of the socket in British spear-heads cannot, it is true, be set aside; and the general line of later development traced by them is indisputable. But their explanation of the evolutionary sequence, and with that the relative chronology of certain types of spear-head, need modifying, I believe, in the light of recent work on the culture-phases of the British Bronze Age.

Yet the main modification I have to suggest will justify and amplify the conclusion reached so long ago as 1894 by Mr. George Coffey in a paper to which Greenwell and Brewis make acknowledgements while ignoring its main thesis.[3] Coffey was concerned with Ireland and not with Britain, and it is therefore the more to his credit that he recognized the importance of continental influences acting on Ireland, in all probability through Great Britain. His views may be put briefly: he held that while the looped spear was native to these islands, the leaf-shaped riveted form was introduced from the continent, and that certain intermediate types usually regarded as truly transitional from looped to riveted forms are better explained as representing the hybridization of the two varieties, native and foreign, the reaction of the old to the new. In studying this problem I found that evidence obtained by the mapping of distributions and by the analysis of associated finds supported Coffey's thesis, which was based mainly on typological observation. The conclusions reached strengthen the view put forward by several writers in recent years, that the established chronology which derives from Montelius is in need of revision. They also point to the desirability of a re-examination of the typology of other bronzes, and especially of axes and swords.

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[1] *Archaeologia*, lxi, pp. 439–72.

[2] *Ibid.*, p. 442.

[3] Coffey, George, 'Notes on the classification of spear-heads of the Bronze Age found in Ireland'. *Proc. Roy. Irish Academy*, iii (1893–6), pp. 486–510.

Coffey's division of Irish spear-heads into looped and riveted may be extended to the British series, though early looped forms are far less numerous and the late riveted types more abundant in Great Britain than in Ireland, a fact of some significance for the problem of origins. 'The separation of type', he writes, 'extends further than the mode of attachment: the form of the blade of each class is quite distinct.'[1] Omitting for the moment types which are admittedly intermediate between these two groups, we have, in the general series of spear-heads in the British Isles, a broad twofold division which corresponds, I believe, with the distinction between the two major cultural phases of our Bronze Age.[2] The change from looped to riveted spear would thus be equivalent to the change from palstave to socketed celt, from rapier to flange-hilted (leaf-shaped) sword, and in general from a period of native culture to one based on continental cultures introduced by trade and invasion. The customary classification of spear-heads obscures this fundamental division by elevating certain hybrid forms to the rank of types in an evolutionary series, and ignoring the influence of external ideas on regional cultures. While denying 'any controlling influence from outside', Greenwell and Brewis admit that, by a remarkable chronological coincidence, 'the leaf-shaped head came into existence contemporaneously with the socketed axe and the sword'.[3] But they held that it passed in the reverse direction, from Britain to the mainland. It is now clear that all three were novel forms of continental origin, and they remained the leading types of the Bronze Age down to the end of the second phase which they introduced. The plain leaf-shaped form, described by the writers in *Archaeologia* as the form to which the main stream of evolution tended, goes back to the beginning of the middle Bronze Age in Central Europe as in Italy and Scandinavia,[4] and was one of the weapons popularized by the Urnfield cultures. But it reached Britain in advance of the main Urnfield invasion. At Pokesdown,[1] for example, a spear-head of this type was found by Dr. Clay lying on a surface older than that in which the urn-burials had been made. It is abundant in certain clearly marked hoards, containing winged and socketed axes and swords of the Beachy Head type, which characterize a restricted part of south-east England.[2] This very distinctive culture was introduced, it is claimed, by invaders who reached this country from France at the commencement of the last millennium B.C. Though earlier intrusive cultures may yet be isolated, we may assume, as a working hypothesis, that the manufacture of leaf-shaped riveted spear-heads was first established in this country about 1,000 years before our era. It is possible, or even probable, that specimens had reached the coasts of Britain adjacent to the continent some time before that by the ordinary channels of commercial intercourse.

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[1] *Proc. Roy. Irish Academy*, iii (1893–6), p. 487.

[2] Evans, E. Estyn, 'The late Bronze Age in Western Europe', *Man*, 1931, 209.

[3] *Arch.*, lxi, p. 463.

[4] Childe, V. Gordon, *The Bronze Age*, 1930, p. 92.

That the looped type (Class III[3]) is of native origin cannot be seriously disputed. Its derivation from the early tanged spear-head (Class I) by the addition of a ferrule (as in the Snowshill specimen Class I A), the suppression of the tang (Class II), the extension of the socket and the replacement of rivets by loops is convincingly traced by Greenwell and Brewis. In trying to understand why loops were substituted for the rivet[4] it is important to realize that the change had been made before the cavity of the socket was extended into the blade. A two-valved mould found at Omagh, co. Tyrone,[5] was intended for casting ferrules with both rivet holes and loops. We may suppose that it was the need of finding some method of fastening in addition to rivets, *while the socket was still short*, that led to the use of loops to take thongs bound round the shaft. With the lengthened socket, the rivets dropped out of use; the novel device of side loops became universal in the British Isles, and it was left for a new culture to re-introduce the fashion of making rivet- or rather peg-holes in the socket.

Spear-heads of the looped type are almost unknown elsewhere though a few examples reached north France.[6] There are some scattered instances of heads with loops, single or double, from Hungary, Mycenae, South Russia and China, but they seem unrelated to the British series, and it may be doubted whether such loops were intended as means of attachment.

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[1] Clay, R. C. C., 'A Late Bronze Age Urn-field at Pokesdown, Hants', *Antiq. Journ.* vii (1927), pp. 465–84.

[2] Evans, Estyn, 'The Sword-bearers', *Antiquity*, iv (1930), pp. 157–72.

[3] I have for convenience kept the classification proposed by Greenwell and Brewis, though a new system is much to be desired.

[4] It should be noted that binding must have been the traditional method of fixing the spear-head of flint (*Arch.*, lxi, p. 469). The early rivets were copied from the dagger. Greenwell and Brewis observe that 'even if the shaft were broken at the socket the thong would still prevent the metal head being lost'.

[5] *Arch.*, lxi, pl. LXXXI, fig. 81.

[6] Déchelette (*Manuel*, II, i, p. 219) offers the following fanciful suggestion for the use of the loops: 'On pouvait encore y attacher une corde ou une lanière, dont le combattant tenait une des extrémités. En cas de bris de la hampe pendant le combat, la pointe pouvait être ramenée'. With

With regard to the part played by the ferrule in the evolution of the socket, evidence from Ireland suggests that the so-called socketed knife, found in the advanced Bronze Age of the British Isles and also known in France, was similarly evolved by means of a ferrule from a flat tanged blade. The specimen concerned, from Lough Ruadh,[1] has been successively accepted, exposed as a forgery and re-accepted by competent archaeologists, but the whole subject of the ferrule-socket needs investigation. The problem of the use of these socketed objects is complicated by the find, in co. Donegal,[2] of a typical specimen mounted on an 8 ft. ash shaft, secured by two wooden pins. It is hardly conceivable that these blades could have been spear-heads.

In the earliest looped or eared spears the loops, taking the place of a terminal rivet, were low down near the mouth of the socket. As the socket-hollow was extended into the blade, the stem of the spear was shortened in proportion to the blade, and the loops were moved up so as to occupy a position which, in a representative series examined in the National Museum at Dublin, is not far from, though generally slightly below, a point midway between the mouth of the socket and the beginning of the wings. The blade is more or less lozenge-shaped, with an abrupt return on the socket from strongly marked shoulders. Also characteristic are the raised ribs, representing the inner faces of the bevel of the strongly bevelled edges of other specimens. These ribs, which give great energy to the angular form of the blade, converge to join the midrib at a point rather more than halfway up. The spear thus forms a well-proportioned and harmonious whole, and in keeping with the shape of the blade, the side loops are flattened laterally so as to repeat the lozenge form. A strong artistic tradition is evident in these vigorous weapons: the component parts are well balanced, and the loops harmonize with the blade, being larger as the wings broaden and narrower as they weaken (pl. LII, fig. 1).

The ribs are not found on the leaf-shaped heads that later became so common, where they would weaken the appearance of the blade, but they recur on some transitional forms and persist in various ways, apparently as a perpetuation of native tradition, on some examples of spears with lunate

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regard to the alleged difficulty of obtaining a secure binding from side loops, Mr. W. H. Evans has suggested to me that two opposed branches of the ashen shaft may have been left, cut short, at the mouth of the socket, to take the binding thongs.

[1] Coffey, George, 'Further notes on the development of the spear-head'. *Journ. Roy. Soc. Ant. Ireland*, xli (1911), pp. 20–4, fig. I.

[2] *Ibid.*, fig. 2.

openings in the wings. Raised mouldings and straps or fillets are also met with on native forms of the ordinary leaf-shaped spear-head, and may serve to distinguish them from the pure continental type.

Following the looped spears, but before the leaf-shaped type was universally adopted in Britain, we find a group of spear-heads with loops attached to the base of, or incorporated in, the wings (Classes III A and IV B). These we may term respectively types with basal and protected loops (pls. LII, fig. 2, and LIII, fig. 2, no. 2). The blades often retain some traces of the earlier shape, notably in the breadth of the lower part near the junction of the stem; but they are normally somewhat leaf-shaped, with a continuous curve from point to base of wings. Some examples with basal loops show the raised ribs, but they now converge on the tip of the spear. We find, too, though more rarely, blades (pl. LII, fig. 3) which are fully leaf-shaped but with the loops still about midway down the stem (Class IV). These various types represent, in current theory, stages in the evolution of the fully leaf-shaped riveted form.

They are usually vaguely referred to the middle Bronze Age. The loops are held to have migrated gradually from the mouth of the socket to the base of the wings, but this migration has never been satisfactorily explained as an evolutionary process determined by utility. The writers in *Archaeologia* confess that it is 'not what might have been expected', and leave the problem there. Evans was bolder. 'The reason appears to be', he says, 'that the loops were, when thus attached to the blade, less liable to be broken off or damaged than when they formed isolated projections from the socket. The spear-heads were also more readily furbished when the socket was left as a plain tube'.[1] Greenwell and Brewis evidently did not think these reasons worth quoting, and it is perhaps unnecessary to point out their inadequacy here. There is in fact little to suggest that the loops were *gradually* moved higher and higher towards the base of the wings: in the great majority of examples they are placed either about midway down the stem or actually at the junction of the wings.

Coffey, so far as I can discover, stands alone in attributing the change in position to the influence of the leaf-shaped form. 'The introduction of the new type among a people accustomed to the loop as a mode of attachment', he writes, 'would naturally lead to some such compromise until they had mastered the difficulty of forming rivet-holes in the socket.'[2] The curved outline of the leaf-shaped blade is readily carried on into the loop, whereas the blade of the earlier looped form, being abrupt in its return on the socket, precludes the attachment of the loop. Once attached to the base of the wings, the loops would tend to become incorporated in them, for the leaf-shaped spear seems to have derived its widespread popularity from its restrained simplicity and decision of line. The loops were now becoming functionless, and even before the peg-fastening was adopted, they had passed well into the blade to survive as vestigial decorations.

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[1] Evans, John, *Bronze Implements*, p. 327.

[2] Coffey, *op. cit.* (*P.R.I.A.*), p. 500.

The spear-heads with basal loops appear to fall into four sub-types. Though it may be possible to place them in chronological order, it is probable that the whole series had a relatively short life. Moreover, many specimens fall outside any typological classification, and the impression gained from an examination of several scores of examples is that the traditions of manufacture were disturbed and that the native craftsmen were vigorously experimenting to produce more efficient weapons. A marked increase in size is noticeable. While this must have made for efficiency, it also suggests that metals were now more abundant and that a new economic order was setting in. Another interesting feature is the extreme variation in size that occurs. A few examples are very diminutive, but heads up to 20 in. in length are fairly frequent: several are more than this, while some approach 3 ft. in length. The largest spears of the French Bronze Age are cited as being of this British type.

In some of these extremely long heads the socket is too narrow to have been of use, and we are faced with a problem that recurs on a more extensive scale in the late Bronze Age of Brittany, namely the production of bronzes of no obvious utility. The explanation, one suspects, may be quite different in the two cases: at any rate these absurdly long spears appear to be nothing more than the expression of a child-like exuberance in a fresh venture.

With the appearance of spears with basal loops, then, the conservatism of native tradition was broken, and fixity gave way to experiment and compromise. This change was doubtless helped by the introduction of new methods of casting, though stone moulds continued to be used for some time in Ireland.

The four main sub-types may be briefly described as follows:

(1) Probably the earliest type, which occurs most commonly in the lower Thames valley, may be illustrated by the well-known spear from Elford (Northumberland). Ribs on the blade, or occasionally the inner faces of bevelled edges, are continued inwards from the base of the blade to join the socket and form loops. 'The edge of the base of the wings in many cases turns sharply inwards in a straight line at right angles to the socket'.[1] Some long specimens of this type occur in Ireland.

(2) In the north of Ireland a specialized form of type I, with a curved

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[1] *Arch.*, lxi, p. 459; Evans, John, *Bronze Implements*, figs. 405, 406.

edge and rectangular loops, is represented by some half dozen examples (cf. pl. LII, fig. 4). That from Knockans[1] is typical.

(3) This is a slender leaf-shaped type with flat or slightly bevelled wings and loops, flattened laterally, completing the curve of the blade. A specimen from Lakenheath Fen may be taken as the type-example.[2] The midrib is normally ridged and sometimes has a bead. This is the commonest of the four types and has a wide distribution in Britain and in Ireland.

(4) A plain leaf-shaped form, with loops that have almost lost their side flanges and appear as perforations in a flat blade, is confined to England and south Scotland and is illustrated in the spear-head from Nettleham (Lincolnshire).[3]

In these transitional spears taken as a whole, freaks of one kind and another occur with a frequency that strengthens the impression of variability noted above. Sometimes the loops are blind, while in other instances they have an opening 'so narrow that no effective thong could be passed through them'.[4] From Culmstock (Devon), Tebay Fell (Westmorland), and from Ireland come broad leaf-shaped spears with large circular loops that look ridiculously out of harmony with their general simplicity. A late example from Derbyshire has a single monstrous loop, and a specimen from Stalmine Moss, Lancashire, is similar.

A small rivet hole is very occasionally found in such exceptional spears, but the general effect of the obsolescent loops seems to have been an increase in the length of the socket. It is possible that this was a factor in the distinctly large size of most of the forms with basal loops. In specimens with protected loops the socket is often of ungainly length, and it appears frequently to have been hammered in at the mouth so as to grip the shaft.[5]

Irregularities are also of fairly frequent occurrence in the loops of the Class IV spear-heads, where their normal position is midway down the stem. In a small specimen in the National Museum, Dublin, they are replaced by simple bosses with flattened ends, while in another figured by Wilde one loop is near the base of the wings and the other towards the mouth of the socket.[6] Blind loops also occur.

To the same transition period, I think, we may attribute the rare spear-heads with blades resembling rapiers (Class IV A) of which six are known from Ireland and two or three from England. Another Irish specimen is shown in pl. LIII, fig. 1, no. 2. In length they vary from 10 in. to 20, and the loops are near the angle between blade and stem. It seems likely that these provide yet another illustration of the experiments in bronze working undertaken with the initiative released by the breaking up of the old order.

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[1] Evans, J., *op. cit.*, fig. 411.
[2] *Ibid.*, fig. 409.
[3] *Ibid.*, fig. 410.

[4] *Arch.*, lxi, p. 469.

[5] Here, again, reason has proved a poor guide in seeking an explanation of the 'protected loops'; and writers have found it easier to laugh at the theories of others than to offer solutions themselves. Thus Evans (p. 332), 'An Irish friend has suggested that they were for the reception of poison, but after the blade had penetrated 17 in. into the human body such a use of poison would probably be superfluous'.

[6] Wilde, Sir W., *Catalogue of the Museum of the Royal Irish Academy*, fig. 363.

Before considering the regional distribution of these transitional spears in the British Isles, reference may be made to their European range. No doubt most of the continental examples, which are all from France and Germany, and which apparently all belong to the group with basal loops, are British exports; but at least one mould is known from north France. There are perhaps a dozen of these spears found between the Loire and the Somme, and Evans refers to another specimen in the Museum at Carcassonne.[1] They belong to the four main sub-types defined above. Five examples are known from Germany, where they occur in the Middle Rhine and along the north coast as far east as Danzig.

In the British Isles the number of spears with basal loops[2] is much larger than any earlier reference to them would lead one to suspect. The approximate figures for the four countries are: England, 160; Ireland, 80; Scotland, 12; Wales, 3; total 255.

England thus has twice as many examples as Ireland, whereas of the earlier looped type (Class III) Ireland has by far the larger numbers. It may be permissible to argue from this that the form with basal loops was evolved in England (as the general facts and the typology suggest), and that it cut short the life of the earlier looped spear in parts of Britain nearest to the continent. Coffey argued further, for Ireland, that the drop in numbers (80 as compared with some 320 looped) was still another indication that these basal looped types were experimental compromises and not 'improved forms' in a normal evolutionary sequence from looped to riveted forms.

If now we examine the associations and distributions we shall find further evidence to support Coffey's theory. At first sight the distribution seems to be very general (fig. 1): we cannot distinguish in any clear way between the lowlands and the uplands, except that two lowland areas stand out—the Cambridge region and the lower Thames valley in and above London. Over one-third of the total found in Great Britain comes from the latter area. Elsewhere its absence in the peninsular regions, excepting those leading to the northern half of Ireland, is noteworthy. There are, to my knowledge, no examples from the Scottish Highlands, from south-west Wales, or from the

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[1] Evans, J., *op. cit.*, p. 328.

[2] Not including Class IV, whose distribution I have not been able to study.

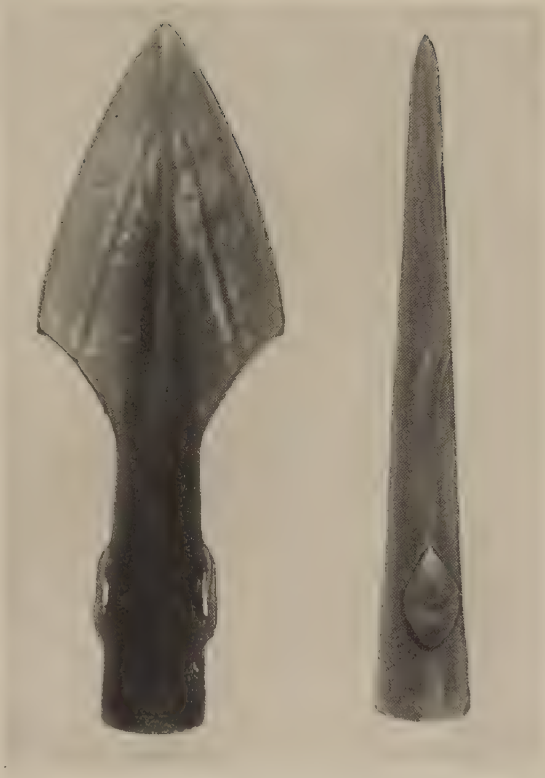

Fig. 1. Bronze spear-head, Northern Ireland (?). Grainger Collection, Belfast Museum (⅔)

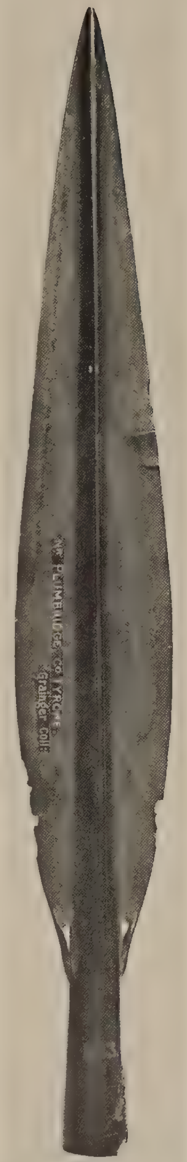

Fig. 2. Plumbridge, co. Tyrone, Grainger Collection, Belfast Municipal Museum (½)

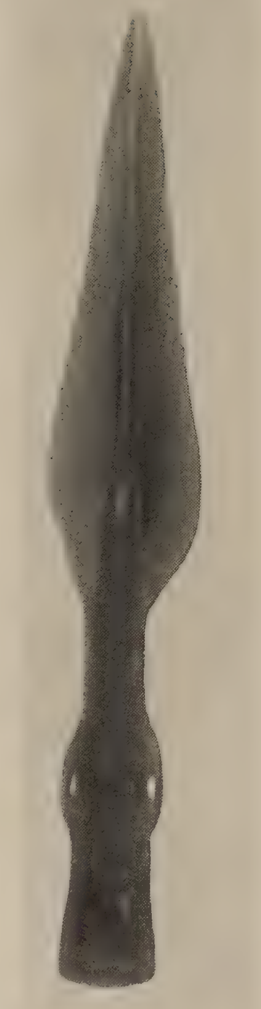

Fig. 3. Bronze spear-head Northern Ireland (?). Grainger Collection, Belfast Museum (⅔)

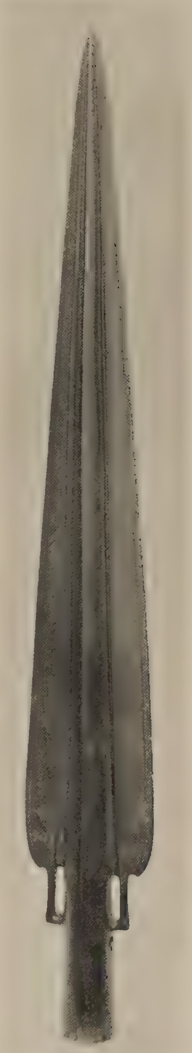

Fig. 4. Probably Northern Ireland. Grainger Collection, Belfast Municipal Museum (⅓)

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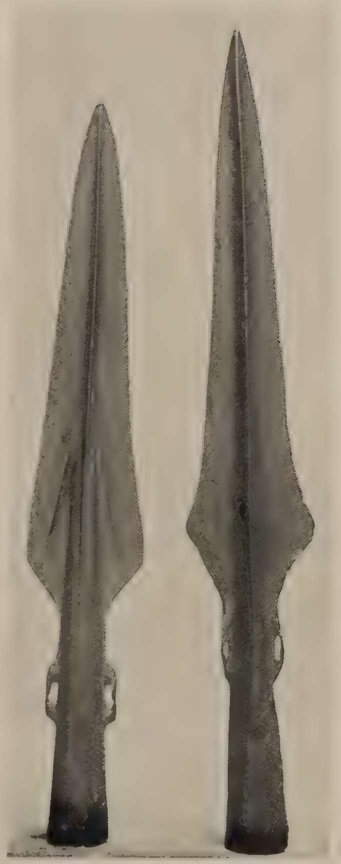

Fig. 1. Two rare transitional types. Probably Northern Ireland. Grainger Collection, Belfast Municipal Museum (½)

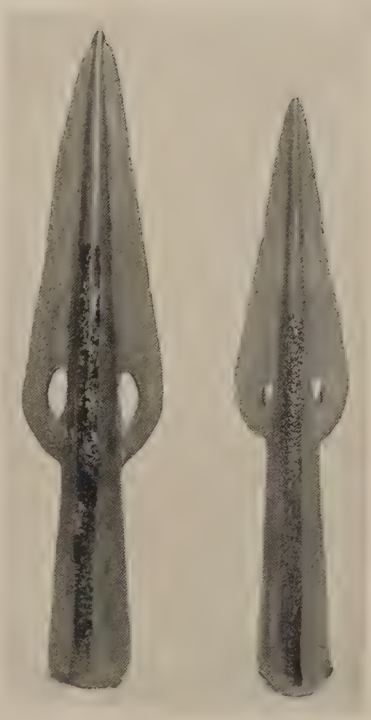

Fig. 2. Early lunate form without peg-hole and an example with protected loops. Probably Northern Ireland. Benn Collection, Belfast Municipal Museum (½)

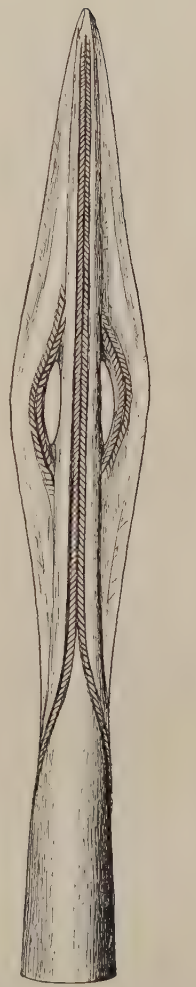

Fig. 3. Spear-head with lunate openings in the wings. Carncastle, near Larne, co. Antrim. National Museum, Dublin (½)

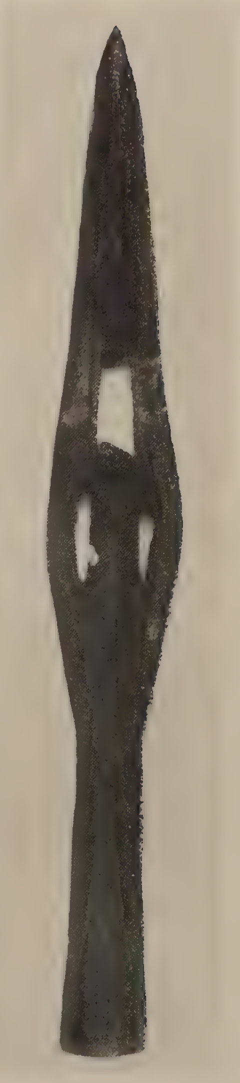

Fig. 4. Bronze spearhead with lunate openings and moulded lines. South of Loughan Island in River Bann. Belfast Museum (½)

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Cornish peninsula. In Ireland, the west and the south are bare, and the connexions of the north with south Scotland are very clear. In distribution as in type the spear with basal loops is intermediary. The map gives the impression of a diffusion from south England which did not penetrate into the remoter parts of the north and west. The concentration of finds from Somerset to the Wash throws into relief the emptiness of the extreme south-east. This uneven distribution is not consistent with their attribution to a middle Bronze Age of peaceful development. Hardly a single spear-head comes from East Norfolk and Suffolk, Essex, Hertford, Surrey, Hampshire, Sussex, or Kent. Their rarity on the Yorkshire coast may also be noticed.

I have suggested earlier that it was into these areas, here empty, that the manufacture of the leaf-shaped spear of continental type was introduced by invaders whose culture is revealed in a well-defined group of hoards. It is possible that the credit will have to be given to earlier invasive movements which are suspected but not yet clearly isolated. But in any event it is to the continental angle of England that we must look for its introduction; and in area, if not precisely in time, a map of the earliest leaf-shaped spears would correspond pretty well with one of hoards characterized by the exotic winged celt (*Man*, 1931, p. 208). The concentration of spears with basal loops in areas adjacent to this invaded zone seems to me to throw new light on the origin of that type of weapon. It may well have been evolved, not merely under the influence of the leaf-shaped form, but under the stress of defence against invasive groups armed with weapons that showed an all-round superiority over native patterns, and included the flange-hilted sword, perhaps wielded from horse-back.

A matter of some interest in this connexion is the appearance of bronze shields or bucklers of native manufacture. These may be regarded as a natural defensive response to invasion. In perhaps two instances they were actually found in association with basal-looped spears, and their general distribution, while 'native' in character, shows a special relation to the zone extending from Northumberland, through the counties of Durham, Lincoln, Norfolk and Cambridge to Oxfordshire and the lower Thames. The defensive effort, to judge by the restricted extent of invaded territorities, was fairly successful.

But such prolonged contact between the two cultures, native and continental, must inevitably have been accompanied by cultural exchanges, and especially by the diffusion of the novel ideas brought by the invaders. We find evidence of this diffusion in the associations of the spear-head with basal loops. There are 12 or 13 cases of associated finds in England and Wales, two in Scotland and one in Ireland. The number of such finds is in itself important, for hoards are rare in the true native Bronze Age, and the custom of hoarding was one of the novelties of the new phase, if, indeed, it was not in part a response to disturbed conditions. For Greenwell and Brewis (who are concerned to prove the British origin of the leaf-shaped spear) this is merely another coincidence: 'when the spear-head with loops attached to the base of the wings (Class III A) came into use, the deposit of various articles in hoards becomes more frequent'.[1]

In three finds palstaves alone were associated. This cannot be taken to indicate a pure native middle Bronze Age culture, since palstaves persisted into the late Bronze Age and are sometimes found, even without other bronzes, at a very late date. One spear was discovered with rapiers, and another with eleven penannular rings of a simple type generally held to belong to the late Bronze Age. One or probably two hoards yielded shields. In two more English finds trunnion celts or chisels were discovered. Four hoards contain socketed celts (in one case—Nettleham—clearly influenced by the exotic winged celt); two show spear-butts, and three have ordinary leaf-shaped spears. The remaining English associations include bracelets, knife-blades, sickles, torques, rings, a hammer, and a borer. Of these objects the trunnion-chisels, at least, did not come to Britain by the south-east entry; but of their general date Mr. W. J. Hemp writes as follows: 'the evidence of associated finds clearly points to the latest period of the Bronze Age'.[2]

The Irish example was found in association with two leaf-shaped swords. In Scotland the Glentrool hoard is of special interest.[3] Here intrusive influences may be detected in several of the strangely-assorted objects in association, but especially in the bifid razors, and in the 'winged-palstave' of a type we shall refer to later. The Islay hoard[4] contained a halbert, two socketed axes and a winged adze, the last a distinctively late tool.

In France the single association known to me is important as indicating a date contemporaneous with the true winged axe. A mould for a spear with basal loops was found in a complex hoard which included a mould for a winged axe at Gonfreville l'Orcher[5] in the lower Seine valley. In Germany two are dated by associations to Montelius II, and one to the late Bronze Age.

Spear-heads with protected loops (retaining the side projections of the loops inside the wings) are found in association in three hoards, all coming from a restricted area of north-east England. Palstaves and rapiers are typical here, but in each hoard there is something besides. The spear-butt, penannular rings and socketed celts tell us that the spears are to be referred to the second phase of the Bronze Age. The associated rapier at Wallington (Northumberland) is important: it is clearly modified by the leaf-shaped sword and has become a cutting weapon.[1]

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[1] *Arch.*, lxi, p. 462.

[2] Hemp, W. J., *Ant. Journ.*, v (1925), pp. 51–4 and cf. *ibid.* 409–14.

[3] Callander, J. G., *Proc. S. A. Scot.* (1922–3), p. 137.

[4] Brewis, W. P., *Arch.* lxxiii, p. 256. The exact type of this specimen is not clear from the illustration (fig. 12). Brewis refers to the loops as 'at the base of the blade', but Dr. Callander informs me that they are on the socket, detached from the blade.

[5] Breuil, l'Abbé, 'L'Âge du bronze dans le bassin de Paris', *L'Anthropologie*, xiv (1903) pp. 501–18.

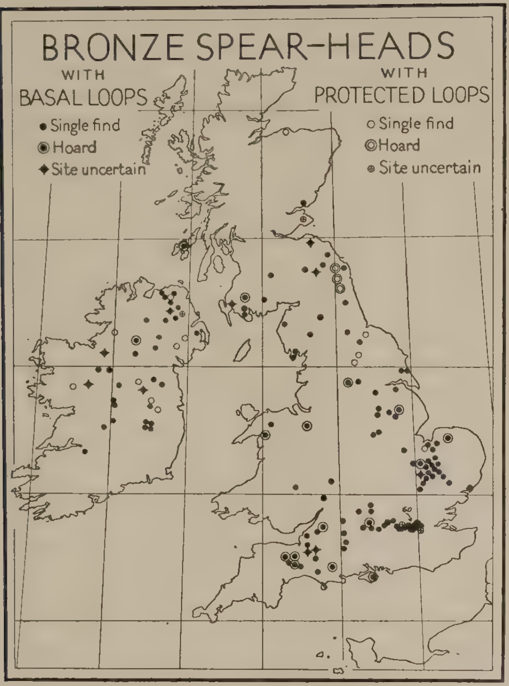

Fig. 1.

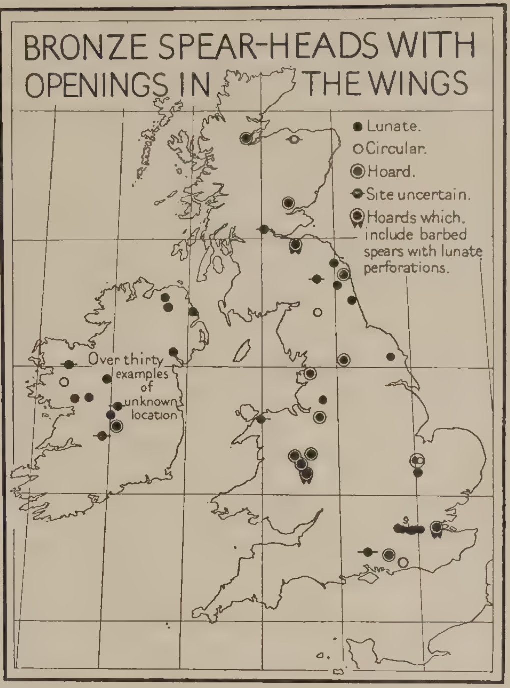
BRONZE SPEAR-HEADS WITH OPENINGS IN THE WINGS
● Lunate.
○ Circular.
◉ Hoard.
Site uncertain.
Hoards which include barbed spears with lunate perforations.
Over thirty examples of unknown location

Fig. 2.

To sum up, the evidence presented justifies the assertion that spear-heads with basal and protected loops are not in the direct line of evolution towards the leaf-shaped spear. They belong, not to the native middle Bronze Age, but to a period when native cultures were infused with new ideas originating on the continent and brought to south-east England by traders and invaders. This contact gave rise to several novel types of weapons, both offensive and defensive, which are characteristically British, and which include the spear-heads themselves.

Another characteristic spear-head of the British Bronze Age is the type with lunate openings in the wings. There are several varieties, including examples with slits or circular holes, the latter sometimes combined with lunate apertures. Irish specimens show every stage in the development of this type from that with basal loops, of which it is the direct successor. The earliest examples that can be described as 'lunate' still lack the rivet or peg hole

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[1] Brewis, W. P., *Arch.*, lxxiii, p. 256.

(pl. LIII, fig. 2, no. 1), but their sockets seem to have been hammered at the base. The apertures had already lost their function as loops, and were retained in a decorative capacity. Economy of metal and lightness have been suggested as contributory causes. The perforations assumed a lunate shape in conformity with the outline of the blade, but at first they remained near the base of the wings, the width in this part of the blade still recalling the shoulders of the early looped type. By the time the peg-fastening had come into use, the openings had become fully adapted to their new purpose, and the blade tended to take on an ogee curve to accommodate the enlarged apertures.

A variant, with narrow leaf-shaped blade, is at home in north-east Ireland. It is handsomely ornamented with raised mouldings truly related to the shape. The openings are midway up the wings and reduced in width; and this form is clearly late in the series (pl. LIII, figs. 3 and 4).

In shape, character and ornamentation these spears are rooted in native forms, and it is unnecessary to seek their derivation, as Coffey once suggested, in the early Cycladic tanged spear with functional slits in the blade.[1] They may be regarded as a by-product of the period of experimentation that roused native industries and introduced the second phase of the Bronze Age. It is significant that the type is almost certainly of Irish origin. The spears with basal and protected loops must have reached Ireland some time after their first appearance in England, possibly at a time when the loops were already becoming functionless, and the Irish metal-workers found new possibilities in the novelty.

The distribution map (fig. 2) shows that the type, though commonest in Upland Britain, is by no means confined to that area, but with the exception of a group of 10 or so from the lower Thames there are no concentrations towards south-east England. The twin peninsulas of East Anglia and Kent are outside its field though they are packed with founders' hoards: the lunate spear-head is never found in hoards containing winged axes.

Some 16 cases of associated finds reveal the socketed axe, the leaf-shaped spear-head and the leaf-shaped sword as its normal contemporaries. Long cylindrical spear-butts, which we first meet accompanying spear-heads with basal loops, as at Nettleham, are sufficiently common to lead to the supposition that they were the fittings of such elaborate spears.[2] They occur at Wilburton, Broadness, Congleton, Broadward and Guilsfield, and though some of these hoards are clearly very late in date, the culture they represent must follow directly on the transitional period. A socketed axe of rare pattern again links up Nettleham with Wilburton.

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[1] Coffey, George, *The Bronze Age in Ireland*, p. 36.

[2] While forming a protective covering for the end of the shaft, they would also help the balance of the weapon; and their appearance with the large spear-heads of the basal-looped type is therefore of interest. In an example found near Amiens the butt was filled with metal (? lead), presumably to give weight. Déchelette, *op. cit.*, p. 222.

Several hoards from the south-eastern region bordering on the invaded territories are of special interest on account of their swords. From Yorkshire, Cambridgeshire, Hampshire, and Wiltshire, three times in association with perforated spears, come swords which show features of more than one type. They have the square notches of the intrusive carp's-tongue sword combined with the leaf-shaped blades of swords of the ordinary V-type. The same belt of country, from Northumberland through Cambridgeshire and the lower Thames area to Devon, has yielded most of the earlier leaf-shaped rapiers dating from the period of the spear-heads with protected loops. By the time the lunate-spears came into fashion, perhaps not long after 900 B.C., concentrated resistance against invaders seems to have broken up, and a synthesis was being achieved in an intermediate belt of country (which we may perhaps think of as a cultural buffer-zone) between the north-west and the south-east, from Yorkshire through Cambridgeshire to Hampshire and Wiltshire.

Spear-heads with lunate openings are also known from the Paris basin and from Brittany. In the hoard of Mené-Tosta (Finistère)[1] its associations include winged and socketed axes, three palstaves (two with transverse edges), three winged adzes, large bracelets, hollow rings, a hog-backed knife, a socketed knife and many fragments of swords, doubtless, though I have not been able to check them, of the usual Breton type. The spears were exported as far as Huelva in Spain,[2] where they were found with characteristic 'Breton' or Beachy Head swords and Sicilian safety-pins. The latter, it seems, cannot be accurately dated, for estimates of the age of the Huelva hoard range from 1,200 to 800 B.C. It can hardly, in my opinion, be earlier than 900 B.C.

Examples are also said to occur in Portugal, Italy, and Albania,[3] so that the connexion with Russia, where they are abundant in certain regions and where moulds for their manufacture are known, was in all probability by way of the Mediterranean. Tallgren's date for the Ukraine series is 900–700, which agrees with their best period in Britain. He notes that they are later (500 B.C.) in eastern Russia, where circular holes also occur.[4] The openings in the blades of some Russian specimens are grotesquely large; and the wings may resemble mere strips of metal attached to a socket. Thus the novelty of the perforated blade, which had first attracted the attention of the Irish smiths, was carried a stage farther in a region where it must have lost all suggestion of its original purpose.

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[1] Déchelette, *Manuel: Appendices* (1910), p. 40.

[2] Ebert's *Reallexikon*, s. v. Huelva.

[3] *Ibid.*, s. v. Lanze. Also Schmidt, H., *Das Vorgesch. Europas*, p. 102. It is not clear from the descriptions, however, what form the perforations take. Spear-heads with round holes in the wings, usually near the base, are known from Switzerland, Sardinia, Italy, Cyprus and Rhodes. 'Perforated' spears are also cited from Hungary and Poland.

[4] Tallgren, A. M., *La Pontide préscythique*, p. 195.

The trunnion chisel is similarly found from Russia to the British Isles, and Tallgren sees in its distribution evidence of the trading activities of a seafaring Mediterranean people. This tool passed in the reverse direction, northwards from the Mediterranean to Britain: like the open-bladed spears it is commonest in the Atlantic province of the British Isles. The socketed celt with double loops and a type of curved knife are also common to Portugal and Russia with Siberia.[1] It is worth noting that the Huelva hoard is described as coming from the wreckage of an old boat.[2]

Spear-heads of this type persisted for many centuries in northern and western Britain and in Ireland; and the openings came to be applied to variant types with some of which they are distinctly out of harmony. It is possible to trace the decline as well as the origin of the fashion, for several examples show 'unmistakable signs of decadence'[3] in late associations. The apertures sometimes leave insufficient room for an efficient shaft to pass between them. They are occasionally marked in outline but left solid, with the enclosed crescents decorated.[4] On one Irish spear, from Boho (Fermanagh), the decoration appears to be a mixture of Hallstatt and La Tène elements. 'Figures of precisely the same kind occur not infrequently on a large and late form of the socketed axe'.[5] Concentric ring decoration occurs on an unusual specimen from co. Dublin and on an example from Alderney, while two iron spears of Irish provenance have ornamental markings recalling the perforations of late Bronze Age types.[6] In Switzerland and north Italy, La Tène iron spear-heads sometimes show openings, usually crescentic, in the wings.

Although there is clear evidence for deterioration in the last phase of the British Bronze Age, as illustrated by perforated spears, the Whittingham (Northumberland)[7] hoard shows that excellent castings were still being made at a time when the horse-shoe pommelled sword (Hallstatt II) was in use.

Lunate openings are also found on spears with hollow and with barbed heads (Classes V B and VI). Both these classes appear to be peculiar to Britain and to illustrate the brilliant if sometimes freakish genius which had been displayed at various times, from the evolution of the ferrule-socket onwards, in the manufacture of the spear-head.

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[1] Smith, R. A., *Proc. Soc. Ant.*, xxxi, p. 157.

[2] *Antiquity*, i (1927), p. 363.

[3] *Arch.*, lxi, p. 454.

[4] Examples from Broadward, Broadness, and Suffolk.

[5] *Arch.*, lxi, p. 471.

[6] Coffey, *P.R.I.A.*, 1910, pp. 96–106.

[7] Brewis, *Arch.*, lxxiii, p. 265.

The curious barbed type, which frequently has a long bronze peg through the socket, is often associated with the normal leaf-shaped form. It is unknown in Ireland, but belongs to an intermediate belt, now extended, running from Midlothian through Yorkshire to the Thames valley, Somerset, and Shropshire. This zone of contact between north-west and south-east may some day be proved to have given rise to many of the novel bronzes of the late Bronze Age.

Here we may add some remarks on the method of hafting the spear-heads with peg-holes. Though examples with rivets are not completely unknown, the usual method seems to have been to secure the head with a pin or peg, normally of wood. A few bronze pins are known, apart from those on barbed heads. Many spears, especially those from the beds of rivers, still retain the part of the shaft held in the socket, and the wood is in most cases ash. Pine and beech are also said to have been found.

As to the length of the shafts, the excavation of the Pokesdown urn-field provided interesting evidence. I chanced to be present when the spear-head referred to earlier in this paper was discovered. The shaft had decayed, but it had left a cast in the compact soil, a hollow pipe; and this cast was exactly 7 ft. in length.

It seems appropriate to conclude with some observations on the relative chronology of our Bronze Age. It is now generally agreed, following on Dr. Cyril Fox's work, that while the invasive continental cultures that established our late Bronze Age replaced the native, for the most part, in south-east England, they tended to be absorbed by those native cultures in other parts of the British Isles.[1] Indications of absorption, however, are more widespread than a simple division of Britain into upland and lowland would imply.

While the distinction between the first and second phases of the Bronze Age is clear enough in south-east England, it is masked, in most regions, by hybrid or transitional types of bronzes. These were placed by Montelius in his fourth period, with the implication that they ante-date the full Bronze Age of his period five. But the difference between them is one of space rather than of time, though a fairly uniform and synthetized culture ultimately prevailed in all parts.

The infiltration of new ideas is illustrated in the following ways:

(1) Spear-heads with basal loops and other hybrid forms appear.

(2) The custom of depositing hoards becomes more common and metals more abundant.

(3) Improved methods of casting are adopted: stone moulds soon go out of use.

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[1] Fox, Cyril, *Arch. Camb.*, 1926, p. 28. See also *The Personality of Britain*, 1932.

(4) Palstaves become degenerate and sometimes take on wings, as in the example referred to from Glentrool.

(5) Native winged axes of various forms make their appearance.

(6) The socketed axe spreads everywhere and takes on regional forms.

(7) The device of the socket is applied to chisels, gouges, hammers, etc.

(8) Rapiers lengthen and are often provided with a tang, no doubt in imitation of the flange-hilted sword. In both tanged and tangless forms leaf-shaped blades occur.

(9) The striking sword itself spreads throughout the British Isles as in nearly every other part of Europe.

(10) Rather later, it seems, new forms of ornamentation (as on barrel- and bucket-urns, in the south-east) are fused with old, and become part of the native tradition, lasting as *appliqué* decoration well into the Christian era in the north of Ireland.

A period of vigorous contact following one of comparative isolation thus stimulated the native people to produce several novel forms of bronzes well illustrated in the many varieties of spear-heads in use. From this large native province a commercial current flowed over western Europe, being especially strong in France, as e.g. socketed knives and hollow penannular gold ornaments show, but also extending to Spain and reaching, indirectly, even Russia. Cauldrons[1] and trunnion chisels, for example, came in the reverse direction from the Mediterranean to Ireland. This peripheral trade along the margins of Europe may perhaps be connected, in its renewed activity, with the revival of Mediterranean commerce about the beginning of the first millennium, and it may also have been encouraged by the contemporary disturbances on the mainland occasioned by the adoption of iron weapons.[2]

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[1] E. T. Leeds, *Arch.*, lxxx, pp. 1–36.

[2] I wish to express my thanks to Mr. A. Deane, Curator of the Municipal Museum, Belfast, and to Dr. A. Mahr, Keeper of Irish Antiquities in the National Museum, Dublin, for their kindness in supplying me with photographs and drawings; to Mr. A. George and Mr. L. S. Gógan for much courteous help in my examination of the material in those museums; to Miss L. F. Chitty, Mr. W. J. Andrew, Mr. Louis Clarke, and Mr. S. Jones for information generously supplied. In preparing the maps I have made considerable use of the Catalogue of Bronze Age Implements, and I wish to acknowledge my general indebtedness to Mr. Harold Peake. I am also indebted to Dr. Ernst Sprockhoff for references to German specimens.

X.—*The Round Castles of Cornwall.* *By* SIDNEY TOY, *Esq., F.S.A., F.R.I.B.A.*

Read 18th February, 1932.

FOLLOWING on the Norman Conquest, large estates in Cornwall and Devon were bestowed by William on Robert of Mortain, his half-brother, and on Judhel, one of his followers. Robert of Mortain received the earldom of Cornwall and large portions of both counties, holding 248 manors in Cornwall alone. His principal seat in Cornwall was at Launceston, though he had other castles in the county, including Trematon. Judhel, afterwards called Judhel of Totnes, also received estates in both counties, and became eventually one of the richest landowners in Devon. His principal castle was at Totnes. Another family—the Cardinans—only traditionally connected with the companions of the Conqueror, are found in the twelfth century in possession of considerable lands about Restormel, and held a castle there.

The sites of these Norman strongholds at Totnes, Launceston, Trematon, and Restormel are still occupied by castles of early date which, though ruinous, preserve much of their original character. The four castles have a marked resemblance to each other. They are much alike in general appearance. In all cases the nucleus of the castle is a shell keep, and there is but one bailey. The keep at Totnes, probably the earliest of the group, remains much as it was when first built. To the others additions and alterations have been made, but in each case the shell itself still stands and is in a fair state of preservation. At Totnes the castle adjoins the town of Totnes. At Launceston the town has grown up round the foot of the castle. Trematon and Restormel are both situated a mile and a half from the nearest town.

The castles at Launceston, Trematon, and Totnes occupy powerful positions, and the keep in each case is raised upon a high hillock presenting a precipitous approach on all sides. Launceston castle stands on an elevated site a mile and a half from the Tamar. It overlooks all the approaches to the river, and commands the whole country between Bodmin Moor and Dartmoor. Trematon, from high ground above the Forder Lake, commands the estuary of the Tamar. Totnes castle, from a point where the river ceases to be navigable, overlooks a long stretch of the valley of the Dart. Restormel, however, has a less secure position. It does command, from the hill on which it is built, an important portion of the valley of the Fowey river, but behind, the ground rises gently above the castle, providing a dangerous vantage ground for an attacking force. This defect, however, was either overlooked or disregarded by medieval builders of castles, for such sites were frequently chosen. The promontory over the Seine chosen by Richard I for the Château Gaillard is a notable instance. Here, though the castle stands on a precipitous cliff 300 ft. above the river, it is commanded at close range from higher ground behind.

The oldest parts of the castles now existing are the four keeps. In order that the general character and dimensions of these keeps may be compared with greater facility, all four shells, divested of their internal structures, are shown together in fig. 1, and all are drawn to the same scale.

Castles existed at Launceston, Trematon, and Totnes in 1086. Launceston and Trematon were held, and in the case of Launceston occupied, by Robert of Mortain, one of the most powerful and opulent lords of his day, who furnished the largest number of ships of any of William's companions. The castles were built in a country where good building stone was in abundance and easy to obtain, while suitable building timber was relatively scarce. They were built, moreover, in a country where stone has been the principal building material from prehistoric times. There is no inherent reason, therefore, that a castle built by such a leader and on such a soil should not be of stone. Since, however, so little of the original cut detail survives, the question of the date of the keeps is so far indeterminate.

Totnes Castle

Totnes castle is not mentioned in Domesday. But in a charter granted by Judhel to the Benedictine priory he founded at Totnes, he endows the convent with lands *quae sunt subtus castellum*. And before concluding this charter he proceeds, *Fecit hanc elemosynam pro Willielmo rege Anglorum de quo illum honorem habebat, ut Deus eum salvum et incolumem conservaret et post hujus vitae decursum ad aeternam vitam perduceret.*[1] There was, therefore, a castle at Totnes before 1086, the date of the Conqueror's death, since this charter was clearly granted during his lifetime. Judhel's son having no male issue, the castle became the property of William de Broase, Judhel's grandson. In the thirteenth century it occurs among the vast estates owned by George de Cantilupe, and from him passed to his descendant, William la Zouche and his successors. John lord Zouche, having fought on the side of the Yorkists, was dispossessed by Henry VII, and his lands were given to Sir Richard Edgcombe, of Cothele. Piers Edgcombe, Sir Richard's grandson, sold the castle to Sir Edward Seymour, of Berry Pomeroy, ancestor of the present owner, the Duke of Somerset.

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[1] Dugdale, *Monasticon Anglicanum*, ed. Caley, Ellis, and Bandinel, vol. iv, 1823, p. 630.

Such briefly is the history, not so much of the castle, as of its ownership. Historical reference to the castle itself is scanty. And this is not surprising, for it was in ruins in the thirteenth century, and does not appear to have been occupied since. At the inquest made into the estates of George de Cantilupe on his death in 1273 the jury found at Totnes *quod est ibi quidam locus qui vocatur castrum de Tottonis qui continet in se quedam debilia edifficia videlicet quamdam aulam debilem cum camera et capella ruinosa. sunt et ibidem quidam muri debilissimi et ruinosi qui circumdant predicta edifficia. et sunt super quamdam motam quidam muri pessimi sine omni edifficio et proparte prostrati.*[1] Here is a vivid picture of ruin and decay as early as 1273, and a description which clearly indicates a long period of disuse and neglect before the inquest was made. The buildings in the bailey, which included a hall, a chamber, and a chapel, as well as the bailey wall itself, were decayed and ruinous, while the condition of the keep was even worse. There was no building

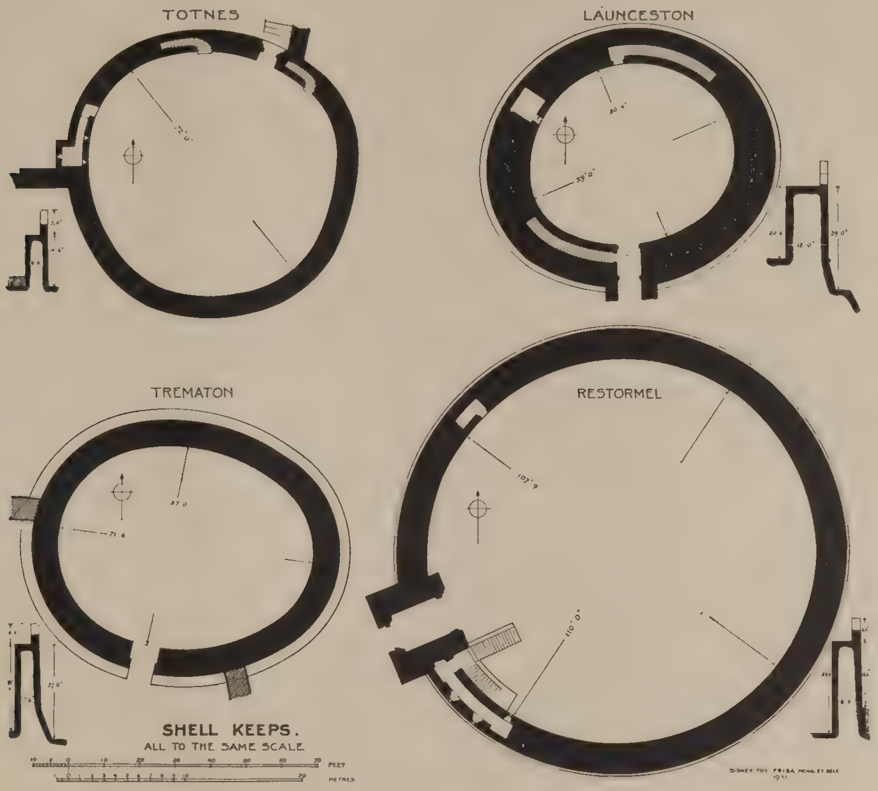
TOTNES
LAUNCESTON
59'0"
TREMATON
RESTORMEL
107'9"
110'0"
27'0"
SHELL KEEPS.
ALL TO THE SAME SCALE
10 0 10 20 30 40 50 60 70 FEET
1 0 1 2 3 4 5 6 7 8 9 10 20 METRES
SIDNEY TOY FRIBA MENS ET DELT
1931

Fig. 1. The four keeps drawn to the same scale.

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[1] Inq. Post Mortem, 1 Edw. I, 1273, C. 133, File 2 (7).

in the keep, presumably no distinct building in its courtyard. The walls of the keep referred to as being in very bad condition and partly fallen down probably included those built against the inner face of the shell as in other keeps of this character. These were swept away at a later period, and the shell itself probably repaired. The present surface of the soil inside the keep must be about 3 ft. above the original level of the court. When Leland visited the castle about 1540 he found that 'The castelle waul and the stronge dungeon be maintainid. The logginges of the castelle be clene in ruine.'[1] From this description it may be inferred that the condition of the castle four hundred years ago was much the same as it is to-day, but that the ruined buildings in the bailey have disappeared completely, and that portions of the bailey wall itself have been thrown down. The position has probably never been used for defensive or residential purposes since the early part of the thirteenth century.

The castle stands above and to the north-west of the town, its bailey projecting still further to the north-west, and its high mound jutting well into the town. The whole circuit of the curtain wall outside the town is protected by a deep wet ditch, which still remains. There was also a ditch round the foot of the mound on the town side, but long since this was filled up and built upon. The curtain wall has been destroyed in many places, and there are no traces of a gateway. The gateway appears to have been on the east side of the bailey, inside the town wall and on or near the site of the modern entrance. A gap in the wall at the north-west may indicate a postern, but no dressed stonework remains. The curtain wall is carried round the bailey without wall towers, and up the slopes of the mound where it joins the shell keep on either side. On the east and south of the bailey the curtain wall is joined by the walls of the town (pl. LIV).

The keep consists of a simple, irregularly-shaped, round shell, from 69 ft. to 72 ft. internal diameter. Its wall is 6 ft. 6 in. thick and 15 ft. high from the ground outside to the level of the rampart walk. It is approached by a flight of steps arranged spirally up the steep mound, and entered from the north by a doorway at the junction of the keep with the curtain wall. The doorway has a round arch of three orders, and is 4 ft. 3 in. wide. There is no portcullis. Of buildings within the keep there is now no trace, either of walls or of roof, and there is no fireplace. On the west is a garderobe, which is entered by a wall passage, and projects beyond the outside face of the keep just within the bailey wall. On the north two stairways, built in the thickness of the wall and arranged one on either side of the doorway, lead to the rampart walk. The parapet is complete all round. Its embrasures are placed at 7 ft.

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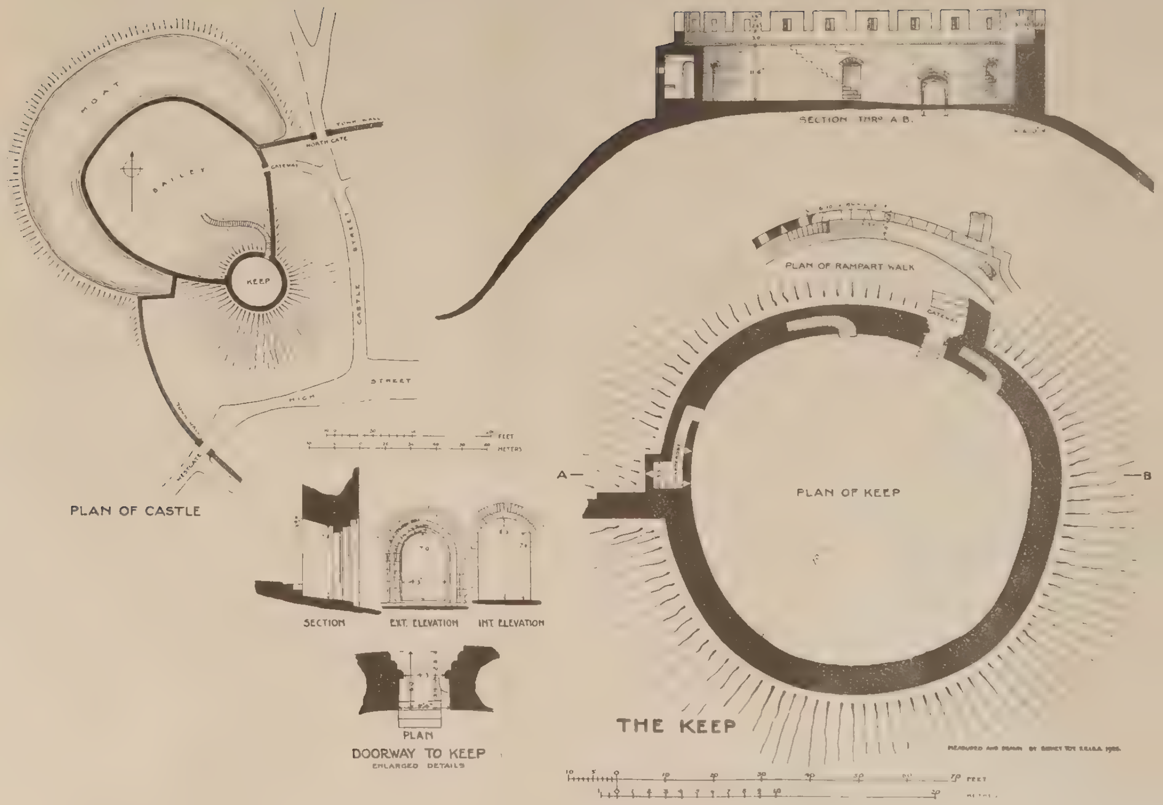
[1] *The Itinerary of John Leland*, ed. L. T. Smith, 1907, vol. i, 218.



Totnes Castle

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intervals, and the merlons are pierced by loopholes. The masonry of the keep is of local red sandstone.

Launceston Castle

Launceston, called Dunevet at the time of the Conquest, is included in Domesday among the lands held by Robert of Mortain. *Ipse comes tenet Dunhevet. T. R. E. geldabat pro una virgata.... Ibi ii molini reddentes xl solidos et xl acre pasture. Olim xx libras. Modo valet iiij libras. Ibi est castrum comitis.*[1] The castle, or the site on which it stands, was acquired from the bishop of Exeter by Robert in exchange for two manors in Devonshire, Havstone and Botintone. *Hec ii maneria dedit episcopo comes Moritoniensis pro escambio castelli de Cornualia.*[2] Whether or not any defensive works existed on the site before Robert's time, it is clear that he had a castle at Launceston before 1086, the date when the survey was terminated. Robert held his court at Launceston, and must have had an establishment of considerable strength there, for he appears to have been noted more for his might than for his beneficence. While he added to the manors he received by deed of gift those wrenched from his weaker neighbours, the value of his estates fell precipitately under his rule. The fall in value of the manor of Launceston, as stated in D. B. above, from £20 at the time of Edward the Confessor to £4 in 1086 is rather a typical than exceptional example.

From the date of Robert's death in 1090 little is heard of the castle apart from its rulers until the early years of the thirteenth century. William, Robert's son, having joined forces with Robert of Normandy was dispossessed in 1106, by Henry I, and his estates became a demesne of the crown. The earldom was held by Reginald de Dunstanville from 1141 to 1175, and in 1189 was granted to John, afterwards King of England. In 1215 John appointed Henry Fitz Count constable of the castle,[3] but he, having offended the succeeding king, obtained his reconciliation by making a full surrender of the castle and county to the crown in 1220.[4] During John's war with the barons Launceston castle was held for the king by John Fitz Richard. For in 1228 Henry III reimburses this loyal subject to the extent of £54 4*s.* 6*d.* *pro fideli servicio quod Johannes filius Ricardi fecit domino J. regi patri nostro tempore guerre et pro expensis quas fecit eodem tempore in munitione et custodia castri de Lancavetun.*[5] Why this reward was held up for some twenty years does not appear.

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[1] D. B., Cornwall. Terra Comitis Moritoniensis.

[2] D. B., Devonshire. Terra Episcopi de Exonia.

[3] Patent Roll. 16 John, 1215. Memb. 15. *Rot. Lit. Pat.*, vol. i, 155 b.

[4] *Ibid.*, 4 Hen. III, 1220. Memb. 2 d. *Patent Rolls* (1216–25), 266.

[5] Close Roll. 14 Hen. III, 1228. Memb. 18. *Close Rolls* (1227–31), 133.

At the time when Henry III came into absolute possession of Launceston castle he was engaged in strengthening his fortresses throughout the country, and he began to direct some attention to Launceston. In 1223 Waleran the German, then custodian of the castle, received twenty marks for the repair of the houses of the castle of Launceston.[1] But most of the work here referable to the thirteenth century was probably carried out by the next earl, Richard, titular king of the Romans. Richard was appointed earl of Cornwall in 1227, and until his death in 1272 appears to have taken a great interest in his Cornish castles.

But from Richard's time the castle must have been neglected. For in the roll of seisin made in 1337, when the county was raised to a duchy, the walls of the castle are described as ruinous and its buildings in an advanced state of decay. On entering into possession of his new estates the Black Prince, the first duke of Cornwall, began to put the castle in a state of repair, for many entries of expenditure for builder's work at Launceston castle appear in the duchy accounts of the years 1340–52. In 1341 the great hall in the bailey was thoroughly overhauled if not rebuilt. This fact is clear from an item in the accounts of John Mountnyroun, Constable of the castle in that year. *De pastura infra castrum nihil quia conculcabatur per equos et alios dum magna aula fuit in factura.*[2] In 1351 the prince gave orders that all his castles in Cornwall, Launceston, Trematon, Restormel, and Tintagel were to be repaired,[3] and similar orders were issued on several occasions between that date and 1362. Repairs at Trematon and Launceston were sustained by the tenants of knight's fees, but to what extent the orders generally were carried out it is impossible to say. Certain it is that the prince was in great need of funds for his activities elsewhere, and there is no indication of lavish expenditure at Launceston. Apart from the great hall the structural work here appears to have been of a minor character.

On 11th June, 1353, an order was sent from the Black Prince 'to the mayor and bailiffs of the prince's town of Launceston on information that the swine of the said town are doing great damage by trampling down the moat round the castle of Launceston, so that the walls of the castle are seriously weakened and in parts are on the point of falling—to cause public proclamation to be made in the town that no one henceforth, under penalty of forfeiture of his swine, allow them to go round the said walls and trample down the moat or do other damage'.[4]

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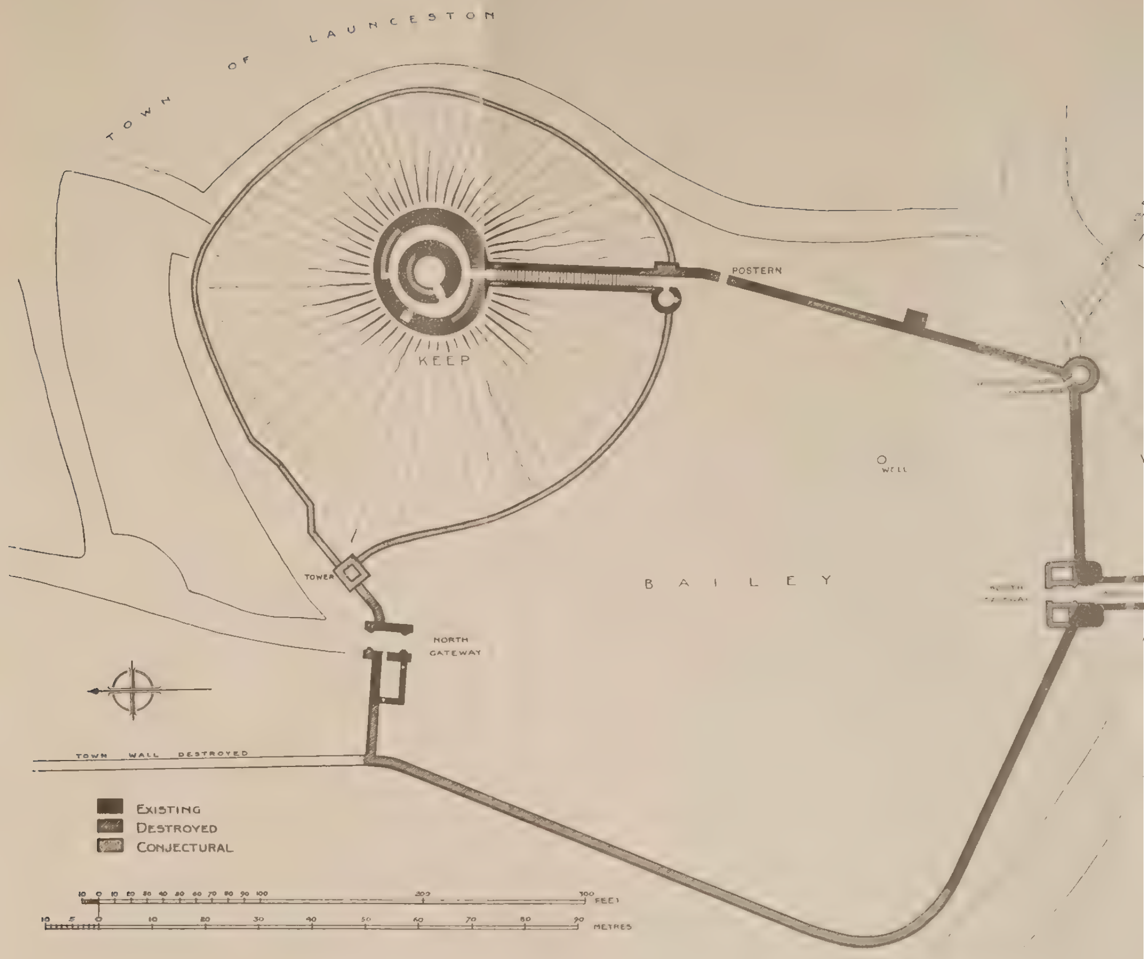
[1] Close Roll. 7 Hen. III, 1223. Memb. 22. *Rot. Lit. Claus.*, vol. i, 528 b.

[2] Roll I. 15–16 Edw. III, 1341–2. Minister's Accounts, Cornwall. Preserved at the Office of the Duchy of Cornwall.

[3] *Register of Edward the Black Prince*, Part II, 9.

[4] *Ibid.*, 47–8.



Sidney Toy, F.R.I.B.A. London. Mens. et Delt.

Plan of Launceston Castle

Published by the Society of Antiquaries of London, 1933

From this period the castle seems to have been again neglected. When Leland visited it about 1540 he writes: ‘Much of this castel yet stondith: and the moles that the kepe stonde[th on] is large and of a terrible higth, and the arx of it, having 3 several wardes, is the strongest, but not the biggist, that ever I saw in any auncient worke in Englande.’[1] The statement that much of the castle was still standing clearly infers that some of it had fallen down. During the civil war Launceston castle was patched up and occupied successively by Royalists and Parliamentarians, but, though pillaged by the latter, it was never besieged. The commissioners appointed by Parliament to examine the property in 1650 found that ‘the said castle is built of lime and stone, but much out of repaire; the hall and chappell quite levell with the ground, there is onely now standing one old tower in reasonable good repaire, the same being soe kept by the County for a prison. The lead that covered it was taken away by the soldiers in the time of Warr. Besides the said tower there is noe part of the castle but the Gatehouse remayning habitable, in which one John Sorrell ye present Constable of the castle liveth, which said house conteyneth two roomes in reasonable good repaire’.[2] The castle was never again repaired. It is shown in a drawing of 1734, by the brothers Buck, as a complete ruin save that the north gateway appears still to be habitable (pl. LVIII, fig. 2). The ‘witches tower’,[3] a round tower at the south-east angle of the bailey, fell down in 1834 during the construction of a new road near its base; and the whole of the west wall of the bailey has also been destroyed. When the assizes were transferred to Bodmin in 1838–40, the gaol at Launceston was swept away, and the whole bailey laid out as a pleasure garden for the town.

The town of Launceston grew up below and round the mound of the castle, and covers two sides of the bailey, the keep towering up high above the houses near the middle of the town. It is only on the west and south that the bailey walls are free (pl. LV). There were two gateways and a postern. The postern, now destroyed, communicated with the town near the foot of the great stairway to the keep. One of the gateways is in the south wall, connecting the bailey with what was the Earl's park. The other is in the north wall between the bailey and the town. Both had gatehouses above them.

Of the south gatehouse only the south portion remains, including part of the gateway with its flanking drum towers, and the connecting wall above. The main portion, projecting well within the bailey, is destroyed. The gatehouse, as well as the curtain wall of the bailey, was probably the work of Reginald de Dunstanville, and built during the latter half of the twelfth century (fig. 2 and pl. LVI, figs. 1 and 2). The drum towers are solid throughout their full height, and rise from battered plinths with a torus moulding. There were probably two storeys above the gateway, the upper one being destroyed completely. All the dressings of the gateway, as of the window above, have disappeared, but the relieving arches of both still remain. Nine feet within the gateway there was a portcullis, and a portion of the groove in which it was worked still remains on the east side, and can be seen in pl. LVI, fig. 2. Precisely how far the gatehouse extended within the bailey can only be decided by excavation, but the rooms above the gateway appear to have been of considerable size. The south wall of the first storey is about 7 ft. thick, and at its north end there is a straight joint.

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[1] *Op. cit.*, vol. i, 174–5.

[2] Parliamentary Survey, Cornwall, 1650. E. 317, 23.

[3] So called from a tradition that a woman condemned for witchcraft was burnt there.

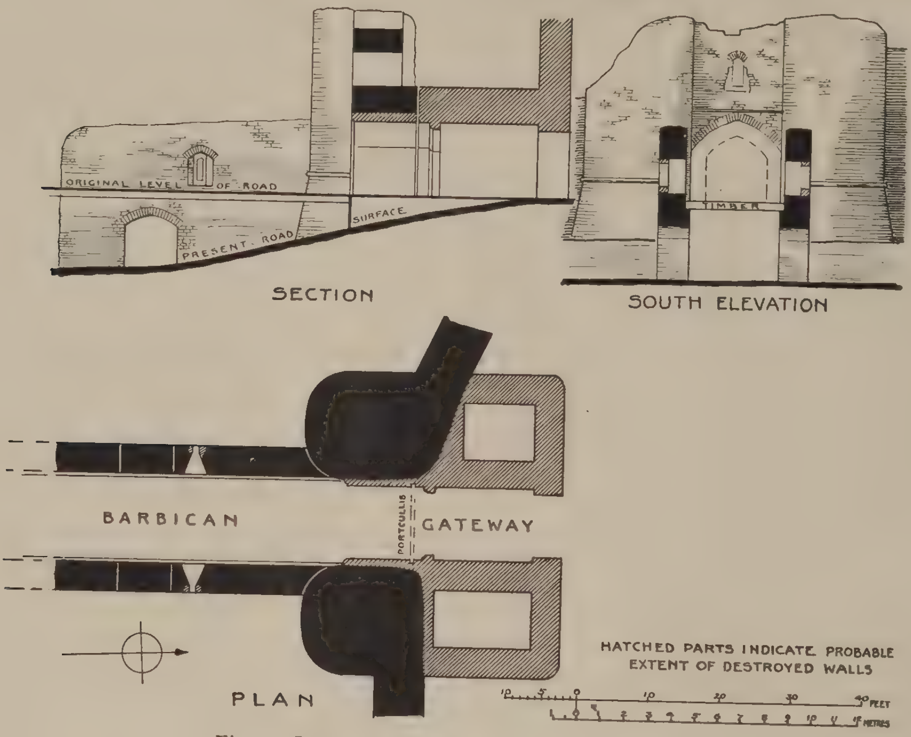

Fig. 2. Launceston Castle. The South Gateway.

The gateway was defended by a long barbican which spanned the ditch by low-pitched arches, and was pierced on either side by loopholes. The roadway between the flanking walls must have been of timber with cross-beams resting on offsets in the walls. About 46 ft. of the barbican, with one arch over the ditch and two loopholes above, remain, but the outer portion has been destroyed and the roadway has been cut away to a rapid fall from the gateway outwards until its surface reaches to about the level of the bottom of the moat.

The north gatehouse, though also in ruins, is in a much better state of preservation than the other. The north wall has been thrown down and the rooms above the gateway destroyed, but the gateway itself, apart from its northern arch, is complete with all its dressings (fig. 3 and pl. LVII, figs. 1 and 2). The gateway has a pointed barrel vault supported between the arches on two heavy chamfered ribs. The arch towards the bailey is of three chamfered orders, and it is probable that the other arch was of similar character. There were two portcullises, one immediately inside each of the arches. The grooves of one of them are intact, while the position of the other is clearly seen. But there appears to have been no other gate, the entrance being closed by the portcullises only. A pointed doorway on the west side of the gateway leads to a building, now roofless, which appears to have been of two storeys. The ground floor was lighted by two narrow windows, and has a locker at the east end. It was used as a prison in the seventeenth century. This gateway is of thirteenth-century date, and is probably the work of Richard, earl of Cornwall, while the addition on the west just described was built in the early years of the fourteenth century.

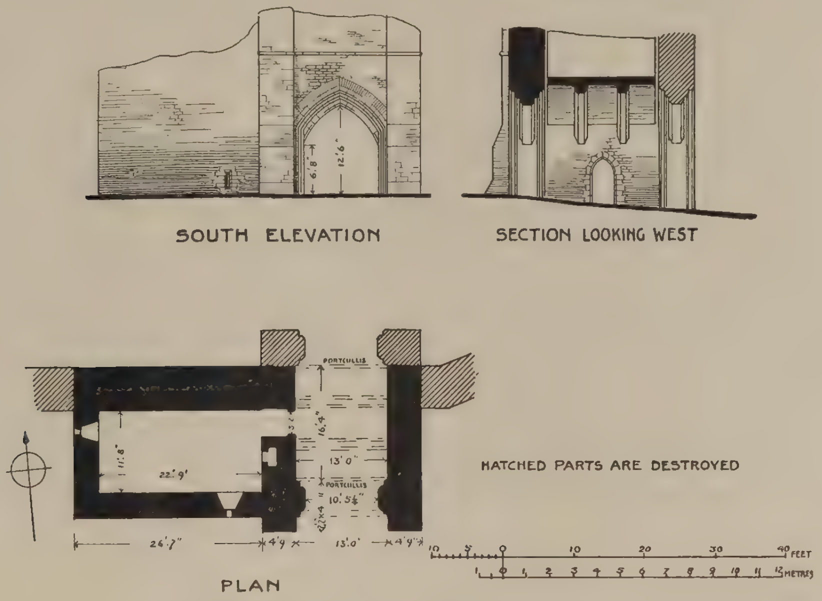

Fig. 3. Launceston Castle. The North Gateway.

Large portions of the curtain wall of the bailey have been destroyed. The wall is best preserved to the south on both sides of the gateway, one piece extending westward from the gateway for about 180 ft. On the east are other fragments, with the remains of a solid projecting tower. The whole of the curtain wall on the north side of the bailey has been destroyed, and there is no indication at present as to the line it followed. The earliest drawing of the castle known to the writer is one by John Norden, now in the British Museum,[1] and reproduced here (pl. LVIII, fig. 1). Granting reasonable allowance to the isometric method of illustration adopted, this drawing, made about 1584, appears to be remarkably accurate. This will be appreciated on comparison with the inventory of 1337, the drawings of the eighteenth century, and existing buildings. Norden shows a wall running from east to west along the north side of the bailey from the tower at the foot of the mound to another tower near the north gateway. The latter tower must have been destroyed long since, but a fragment of the wall near the existing tower is still shown, both in the view by Borlase and in that by the brothers Buck (pl. LVIII, fig. 2). Another wall is shown carried all round the foot of the mound on the north and east from the one tower to the other. Its foundations probably support the substantial wall of more modern date still carried round the foot of the mound on the town side.

Since all the buildings which formerly stood in the bailey have been swept away, the description of them, as of other parts of the castle, given in the roll of seisin of 1337, is of inestimable value. The following is a translation :

> There is a certain castle the walls of which are ruinous and ought to be repaired, so it is said, by the tenants of knight's fees belonging to the honors of the same castle. And there are there in the same castle a certain hall with two cellars which are in need of roofing, one sufficient kitchen annexed to the same hall, one little hall of stage called the earl's hall with a chamber and a little chapel, the partitions of which are of timber and plaster, and the timbers thereof are almost disjointed. And two chambers above the two gates sufficiently covered with lead, one ancient and decayed little hall with a chamber and cellar serving the constable with one little kitchen newly annexed. There is also one competent chapel except the windows which are weak, two competent stables for ten horses. One gaol badly and weakly covered with lead. And one other prison called the larder weak and almost useless. And one passage leading from the castle even to the high tower newly covered with lead, but the steps of which are defective. And there are in the same tower two chambers of which the doors and windows are of no value. And this aforesaid tower has two mantelet walls of stone (*duas mauntelas de muro lapideo*)[2] of which one part containing by estimation three perches has fallen to the ground.[3]

The chapel,[4] dedicated in the name of St. Mary the Virgin, stood in the middle of the bailey. It was still standing when the castle was visited by

[1] Harley MS., 6252, fol. 70.

[2] A mantelet was a covering or outer defence, sometimes a temporary wooden structure.

[3] Caption of Seisin, 11 Edw. III. E. 120, 1 (1).

[4] Patent Roll, 16 John, 1215. Memb. 17. *Rot. Lit. Pat.*, 153 b.

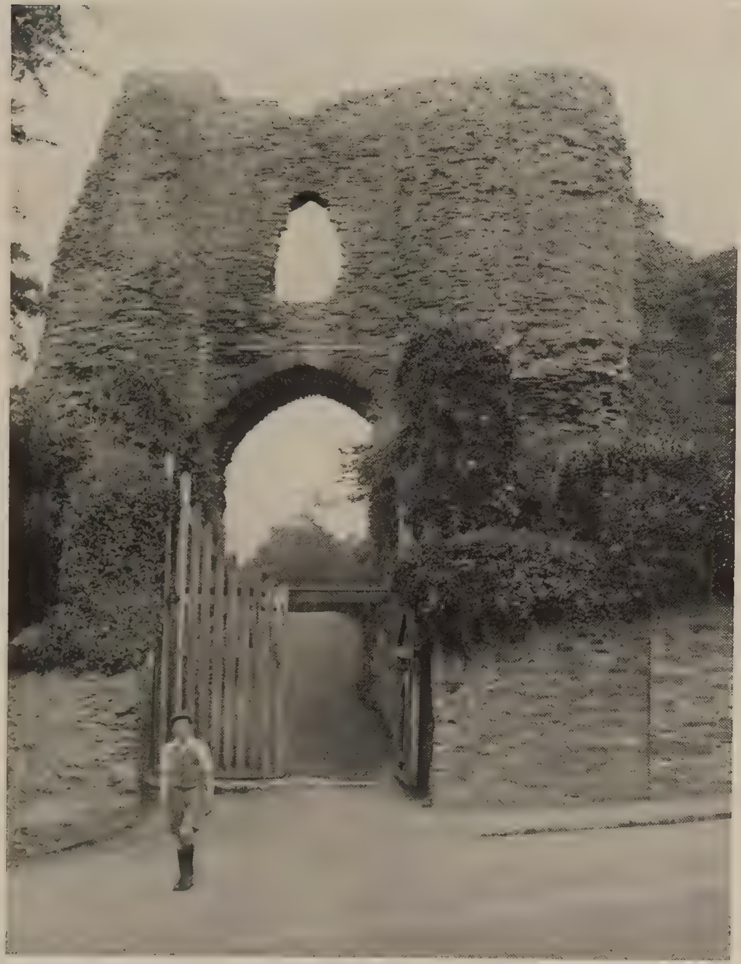

Fig. 1. Launceston Castle. The South Gateway, from without

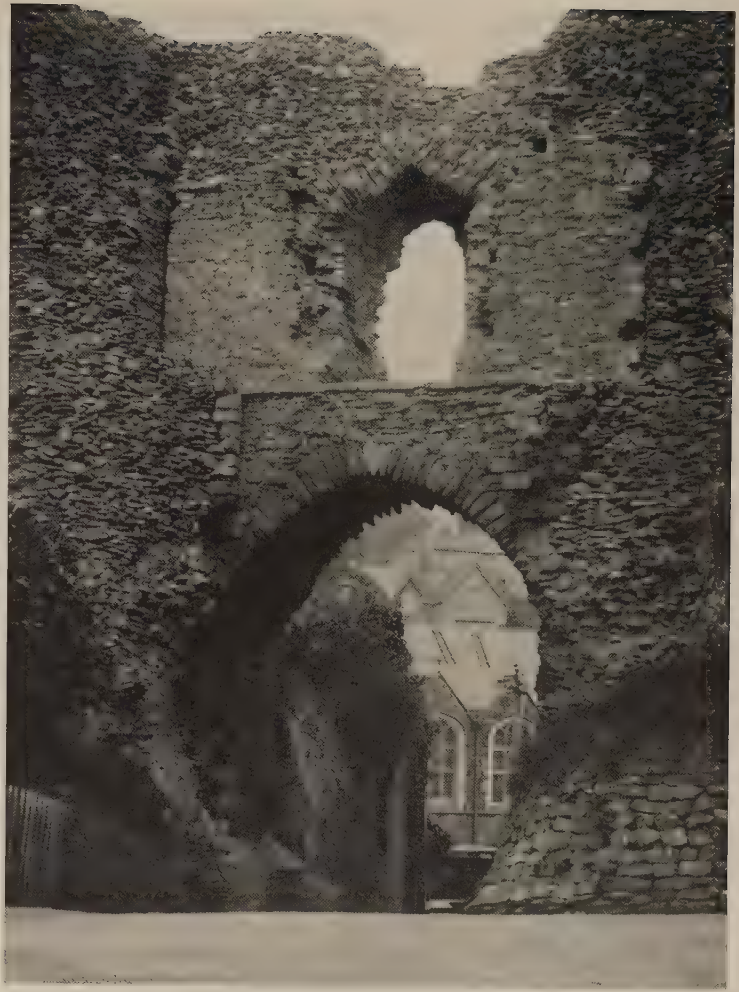

Fig. 2. Launceston Castle. The South Gateway, from within the Bailey

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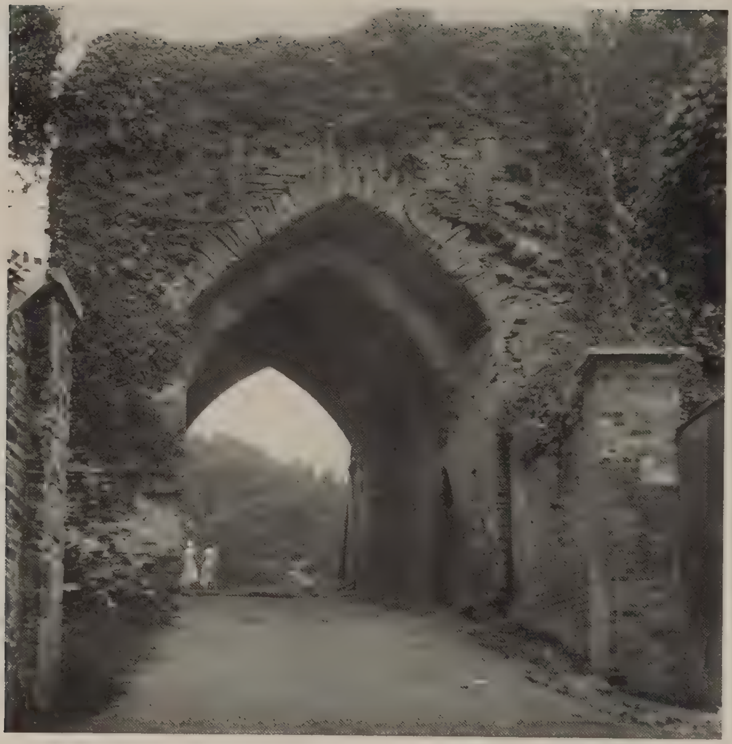

Fig. 1. Launceston Castle. The North Gateway, from without

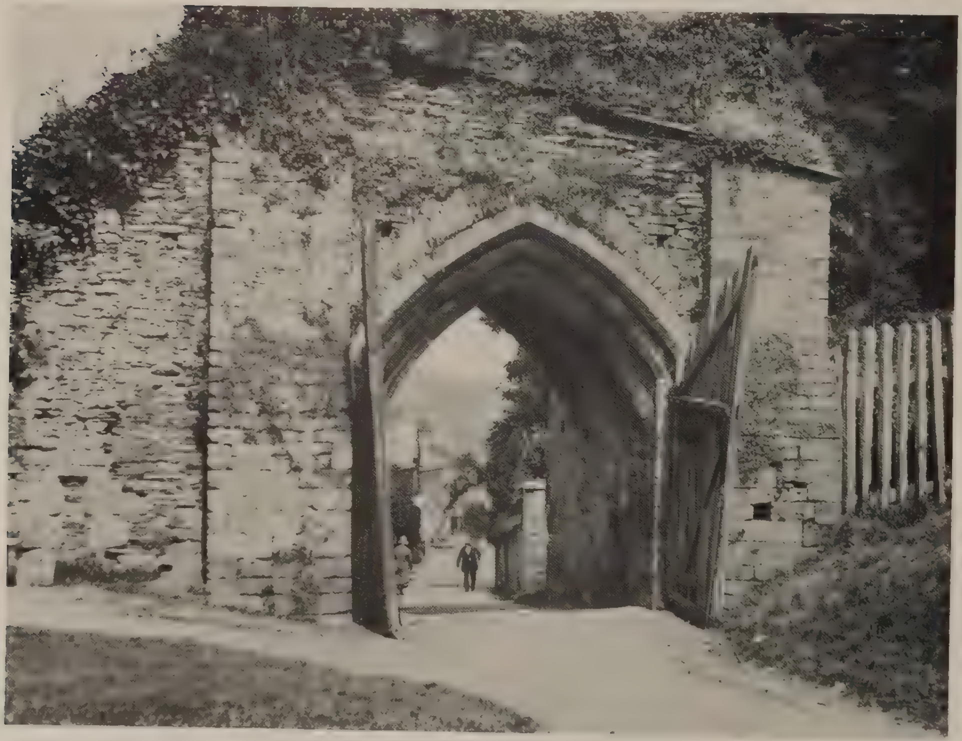

Fig. 2. Launceston Castle. The North Gateway, from within the Bailey

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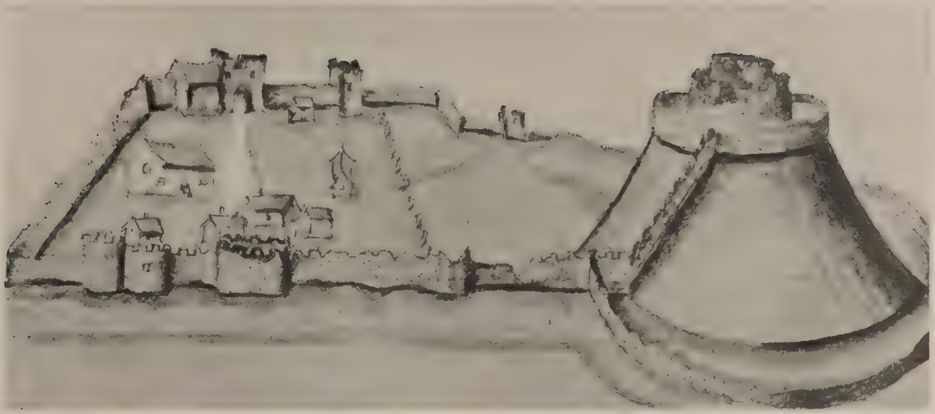

Fig. 1. Launceston Castle. Drawing by John Norden, *c.* 1584

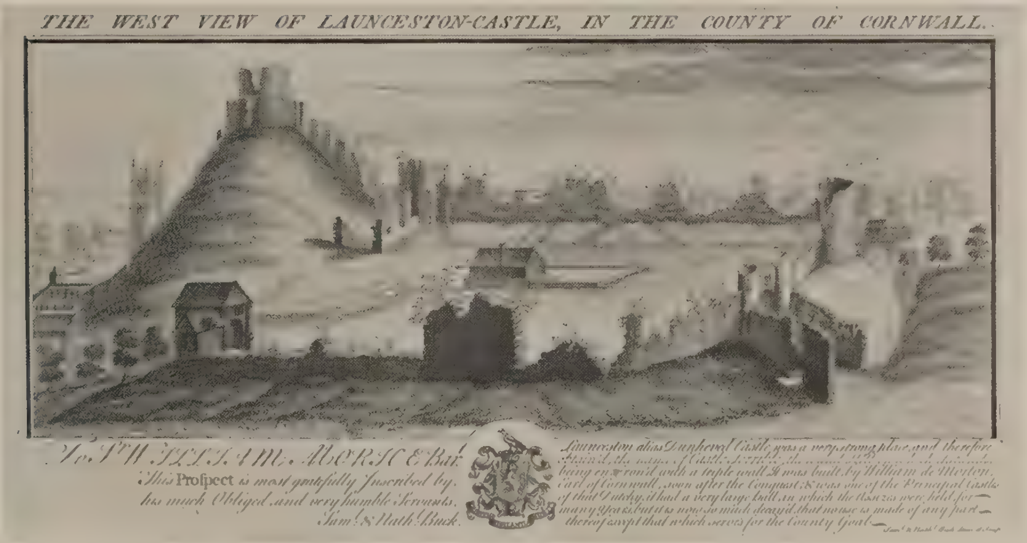
THE WEST VIEW OF LAUNCESTON-CASTLE, IN THE COUNTY OF CORNWALL.
To Sr WILLIAM MORICE Bart.
This Prospect is most gratefully Inscribed by his much Obliged and very humble Servants. Saml. & Nath. Buck.
Launceston alias Dunhevel Castle was a very strong place, and therefore
being environ'd with a triple wall & was built by William de Morton, Earl of Cornwall, soon after the Conquest; & was one of the Principal Castles of that Dutchy, it had a very large hall in which the Assizes were held for many years, but it is now so much decay'd that no use is made of any part thereof except that which serves for the County Goal.

Fig. 2. Launceston Castle. Drawing by the brothers Buck, dated 1734

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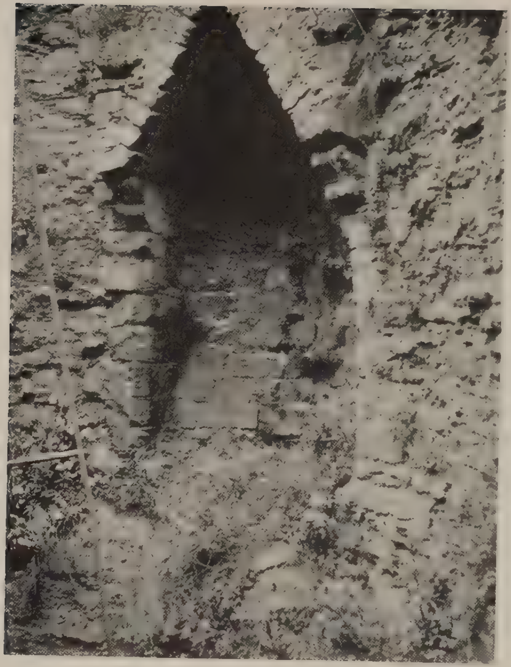

Fig. 1. Launceston Castle. Fireplace in the Keep

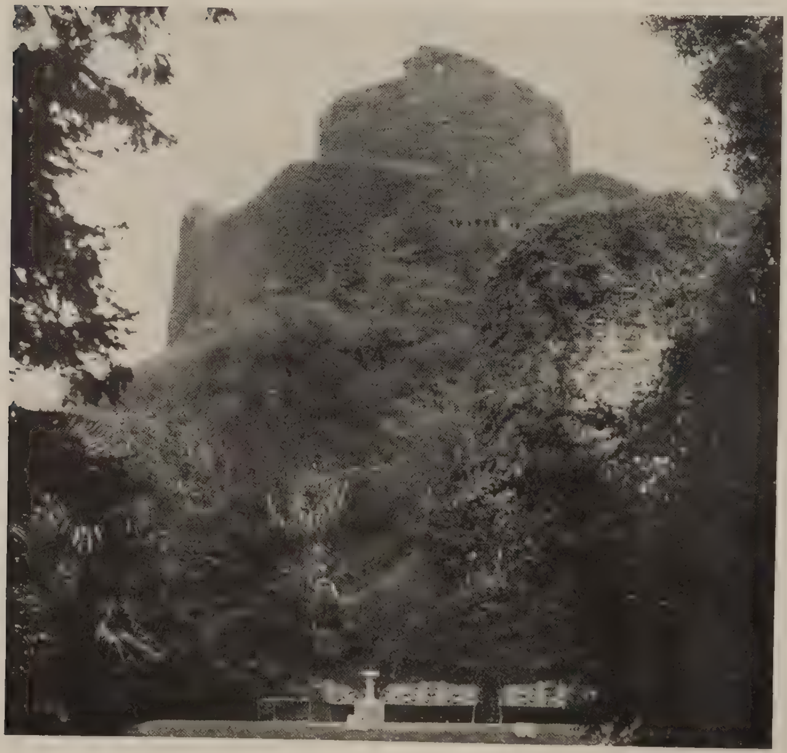

Fig. 2. Launceston Castle. The Keep, from the south

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Carew about 1600, though it was then in a decayed condition.[1] But, as we have seen, both the chapel and the hall were 'quite levell with the ground' in 1650. These buildings are clearly indicated in Norden's drawing, the great hall being on the west of the bailey and the chapel midway between the west wall and the keep.

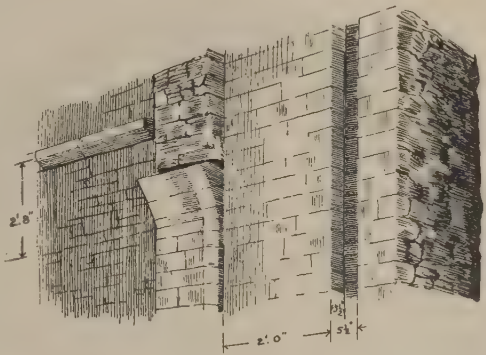

Fig. 4. Launceston Castle. The Keep. Portcullis groove and impost of original gateway.

The keep is reached up the steep mound by a long flight of steps flanked by walls. The mound itself is a natural hillock composed of a slaty stratum. At the foot of the stairway the approach was defended by a round tower, the ruins of which still remain, and doubtless by a gateway, now destroyed (pl. LV). The tower has an internal diameter of 10 ft., its wall is 4 ft. 3 in. thick, and it still stands to the height of about 30 ft. above a plinth with a bold torus moulding. One loophole still remains in the south. The flanking-walls of the stairway to the keep were pierced by loopholes, and the whole covered by a roof. But the roof has disappeared and portions of the walls themselves are thrown down. The nucleus of the keep is a shell wall, ovoid in shape and measuring internally 59 ft. on its longer axis by 50 ft. on its shorter axis. It is 12 ft. thick on the side towards the bailey, where the greatest strength was necessary, diminishing to 10 ft. on the more precipitous side towards the town. The shell has a battered plinth with a bold torus moulding at its head, and rises to the height of 29 ft. at the level of the rampart walk. The parapet has been destroyed.

The gateway at the head of the approach stairway was defended by a portcullis, the grooves for which were formed in the approach walls and not in the shell itself. The gateway, with all the masonry above it, has been thrown down, but on the east side a portion of the dressed stonework, including a short length of the portcullis groove and a fragment of the jamb with the springers of the arch of the gateway, still exists and is shown in fig. 4. It is clear that the gateway had undergone alteration, for within the arch and 2 ft. 8 in. up from its springing line is a plain chamfered impost marking the springing line of the original gateway. Two stairways, built in the thickness of the wall, one entered from the gateway and the other from an internal doorway on the opposite side of the shell, lead to the rampart walk. Above the entrance to the north stairway there was a large rectangular machicolation, the traces of which can still be seen, and it is probable that the other stairway was defended in a similar manner, but since all the masonry above the gateway has been destroyed no traces of it remain. On the north-west of the shell there was a mural chamber or cell 7 ft. 10 in. by 7 ft., and 12 ft. high to the centre of its barrel vault. The vault has fallen down and the end walls are gone, but the exact form of the vault can be traced. A ventilating shaft 8 in. square still remains at the west corner, rising from the cell to the rampart walk. This chamber was evidently a prison cell and had no window or other means of ventilation apart from the shaft (fig. 5).

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[1] *The Survey of Cornwall* by Richard Carew, 1602, second book, fol. 116.

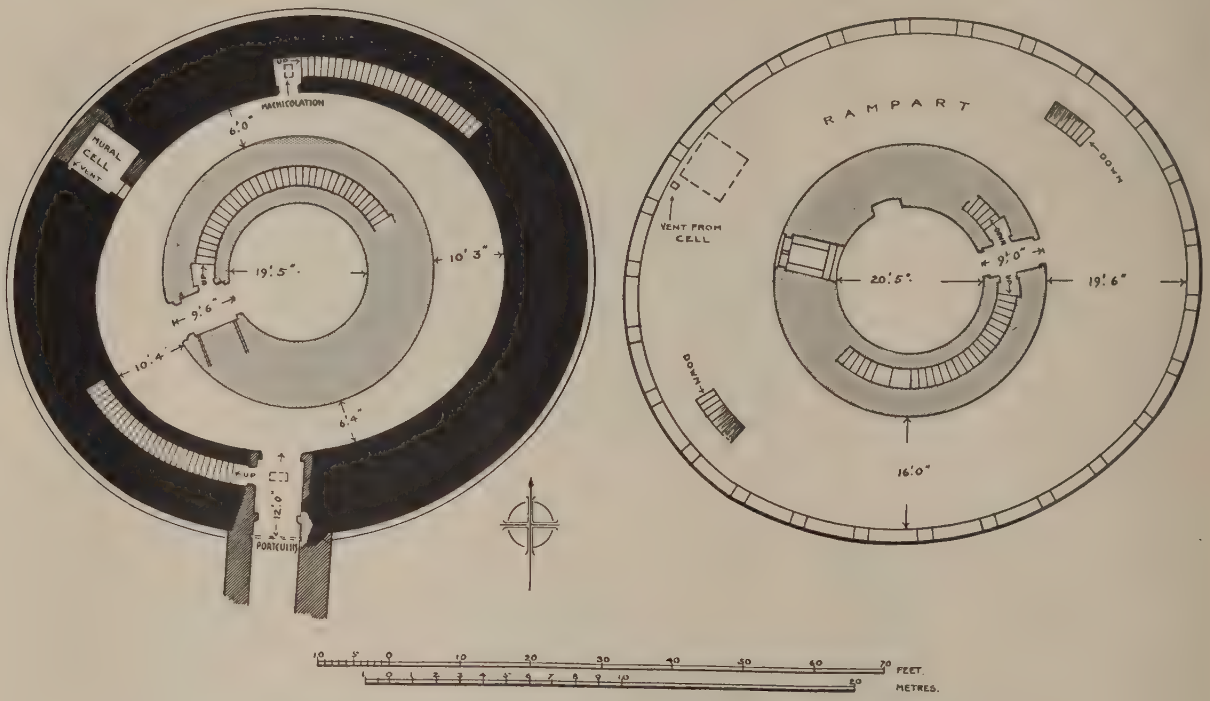

Fig. 5. Launceston Castle. The Keep. Plans of Ground Floor and at level of Rampart Walk.

Within this shell at a later period a round tower was built, the space between the tower and the shell being roofed at the level of the rampart walk of the latter, and the tower carried up at least one stage higher. The entrance doorway (fig. 6), which remains intact, is placed on the south-west of the tower and not opposite the gateway to the shell. It is therefore necessary to traverse a portion of the passage between the shell and the tower before the doorway of the latter is reached. From the entrance direct access is obtained to the ground floor, which has no window or other opening apart from the doorway and was probably used as a store. A stairway, built in the thickness of the wall, runs spirally from the north jamb of the entrance doorway to the top

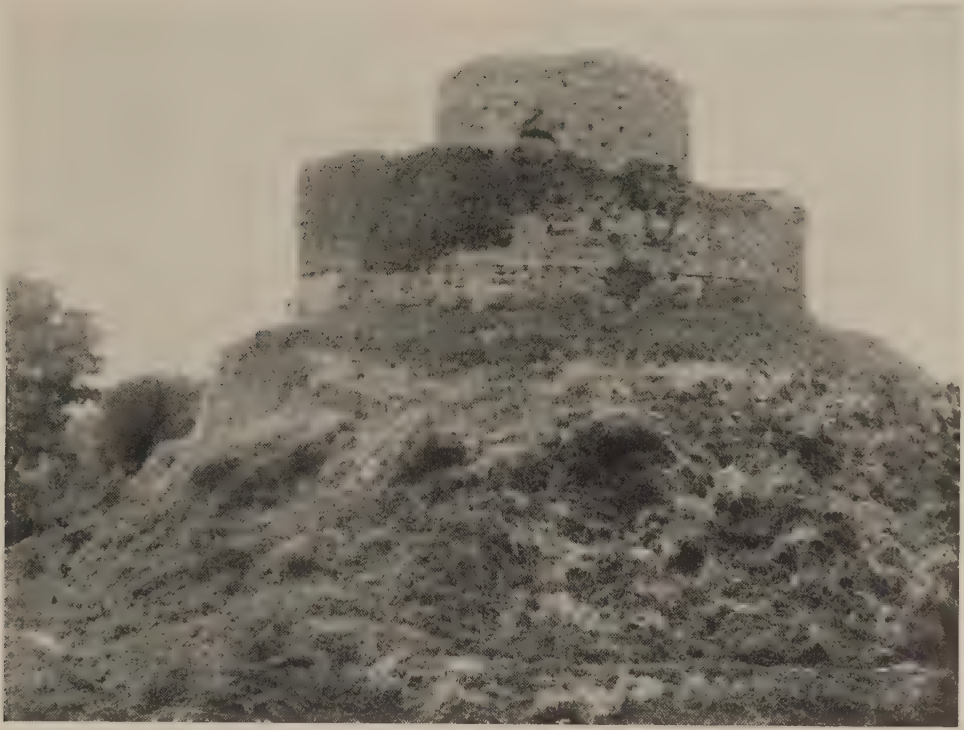

Fig. 1. Launceston Castle. The Keep from the east

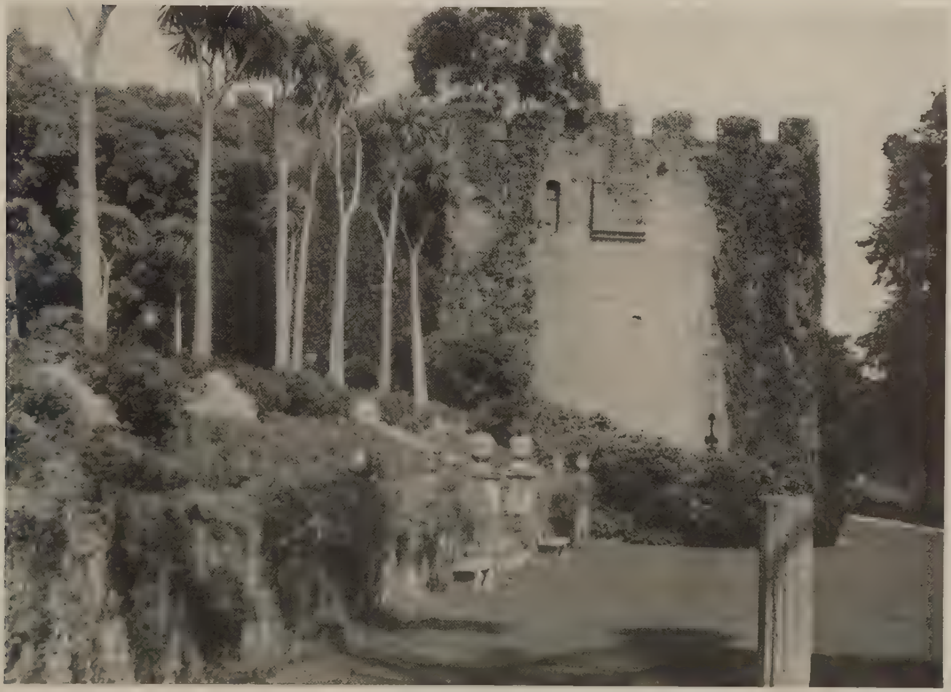

Fig. 2. Trematon Castle. The Gatehouse from the south

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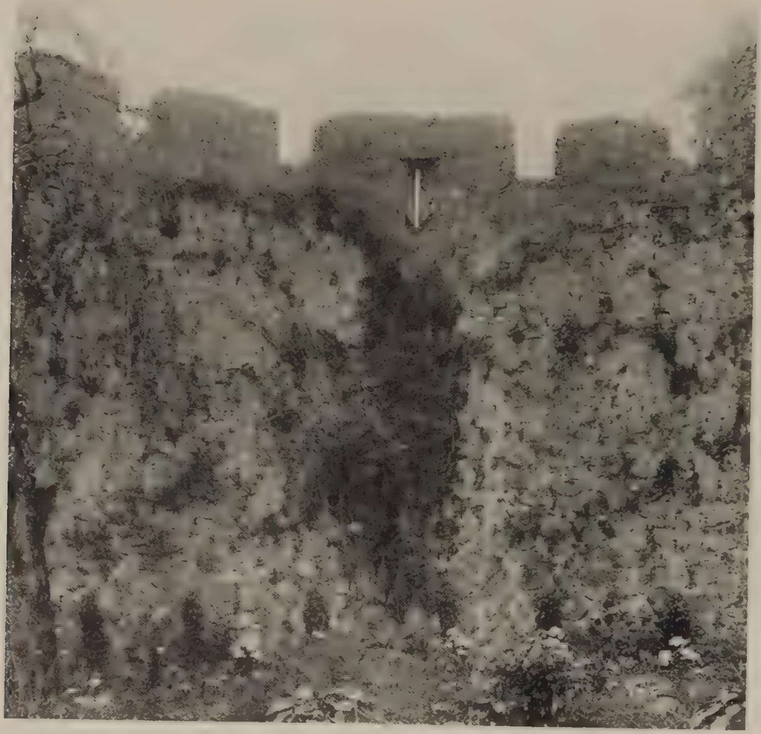

Fig. 1. Trematon Castle. The Keep from within, showing loophole

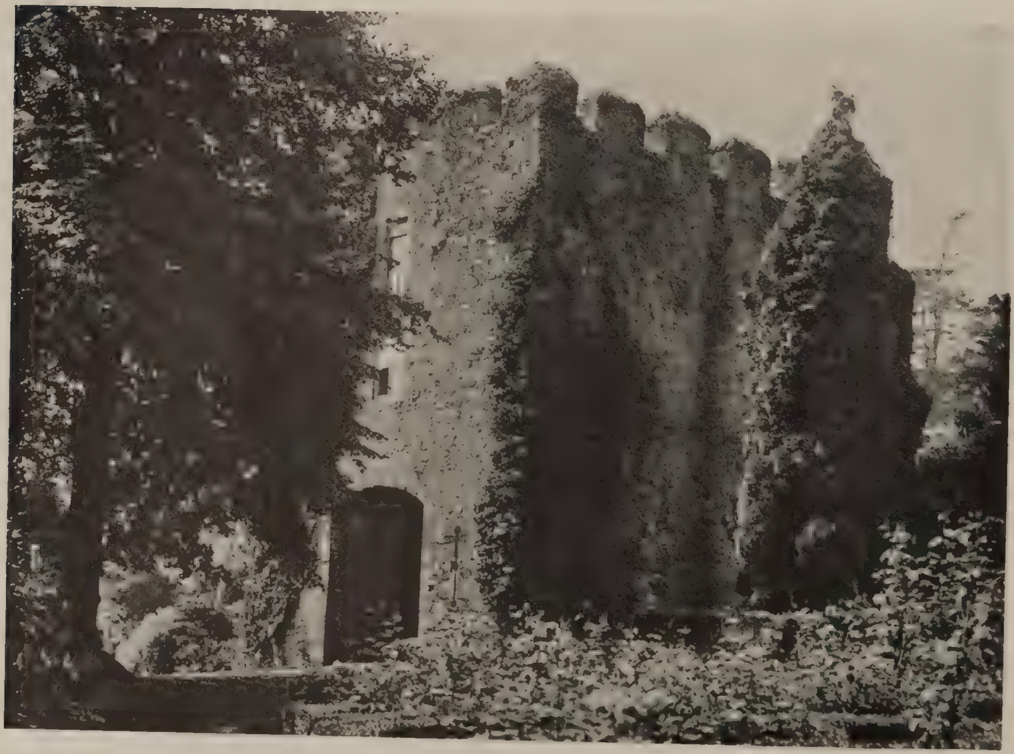

Fig. 2. Trematon Castle. The Gatehouse, from without

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of the tower, interrupted only in its ascent by a passage through the wall connecting the upper chamber with the great rampart outside (figs. 5, 7, and pl. LX, fig. 1).

The upper chamber has a fireplace in the wall on the right of the entrance and is lighted by one window. The timber flooring is destroyed, but the stone corbels for the support of its main central beam are still in position. All the dressings of the window, which was probably of two lights, have disappeared. There are remains of window-seats on both sides. The fireplace, which has lost its hood, is of dressed stonework with a curved back (pl. LIX, fig.1). The stage above this chamber was probably blind and served only to mask the roof. The roll of seisin of 1337 says the tower contained two chambers but, though the point is not quite clear, one of them was probably the ground storey. Certainly Norden's drawing depicts only one storey above the shell. On the outside face a continuous band of holes 10 in. high and 12 in. wide is carried round the tower for the beams spanning the space between it and the shell (pl. LIX, fig. 2). The putlog holes used in the construction of the tower were allowed to remain except on the inner face of the upper chamber. Those in the wall of the ground floor were probably used as sockets for the beams from which the necessary stores were suspended.

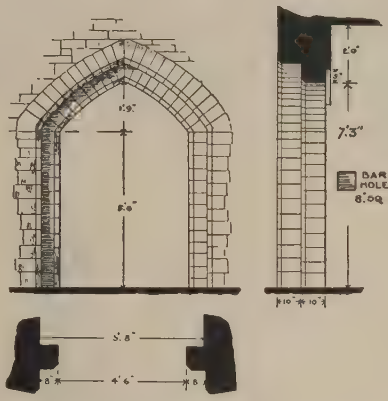

Fig. 6. Lauceston Castle. Doorway to inner tower of Keep.

Outside the shell there appears to have been a parapet wall, constructed probably at the same time as the round tower for the more direct defence of the slopes of the mound. No trace of this parapet remains and recent search for its foundations has proved fruitless. At present there is generally only 4 ft. of width from the base of the shell to the precipitous sides of the mound, though the width is slightly increased on the south near the gateway. The earliest drawings, however, show two encircling or mantelet walls round the inner tower, and the roll of seisin, quoted above, definitely states that there were two such walls. The outer wall must have rested upon insecure foundations from the first: a large portion of it had fallen down before 1337, and it was probably never repaired after that time.

The transformation of this building from a mere shell to a powerful keep was probably the work of Richard, earl of Cornwall, about 1240. The work included the construction of the inner tower and the outer rampart, and the alteration and addition of a portcullis to the outer gateway. Considering its commanding position, its three lines of defence, and its magnificent middle rampart, the keep at Launceston when thus completed must have been amongst the most formidable in England.

From the twelfth century until 1840 offenders were sent to Launceston castle and imprisoned in one of its buildings, the keep, the witch tower, and the chamber adjoining the north gateway being occasionally used for this purpose. George Fox, founder of the Society of Friends, spent some months of the year 1656 in the gatehouse cell and had some disparaging words to say about it. He refers to the apartment as 'that noisome den' and called it 'doomsdale', a name by which it was known from that time. But from an early period there was also a separate gaol which stood in the bailey. It is mentioned in the inventory of 1337 and is referred to by both Leland and Carew, Leland stating that 'a common jail for all Cornwall is in this castle'.[1] The gaol was probably repaired from time to time and perhaps rebuilt, but by the eighteenth century its conditions of decay, disorder, and filth became proverbial

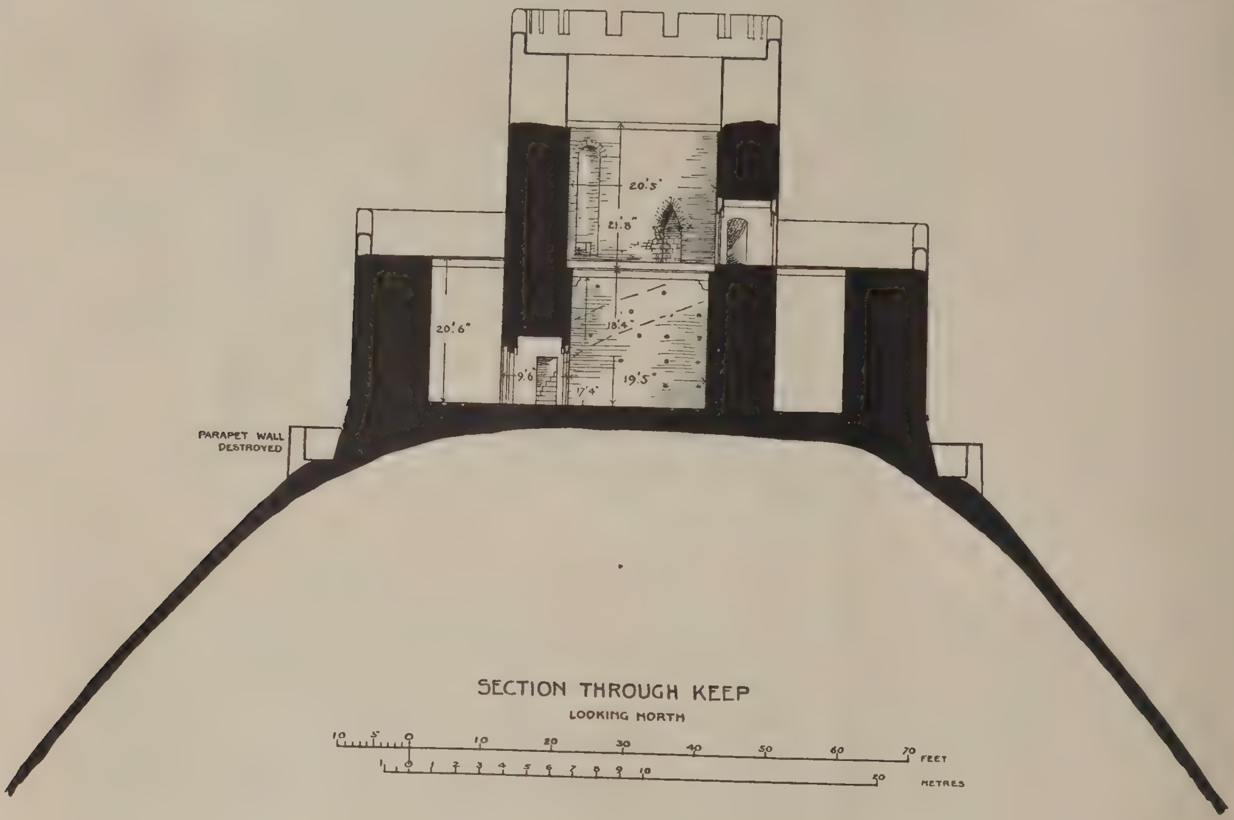

Fig. 7. Launceston Castle. The Keep.

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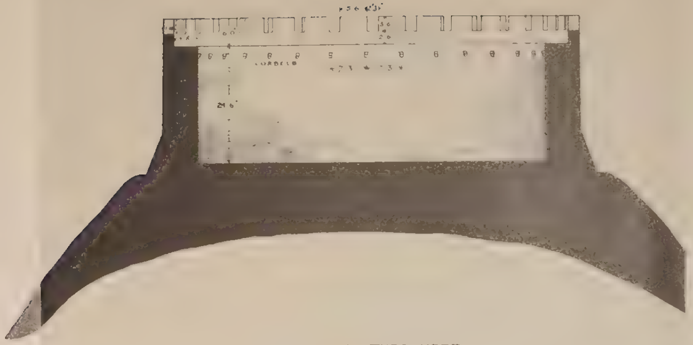
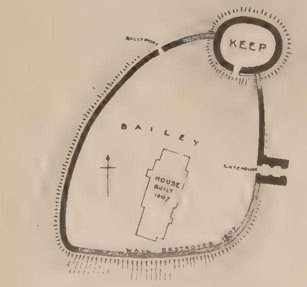
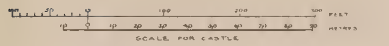
[1] *Op. cit.*, vol. i, 325.

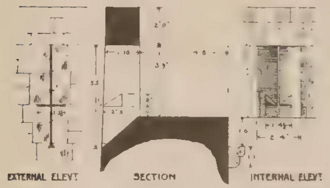


SECTION THRO KEEP

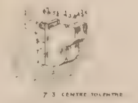


PLAN OF CASTLE

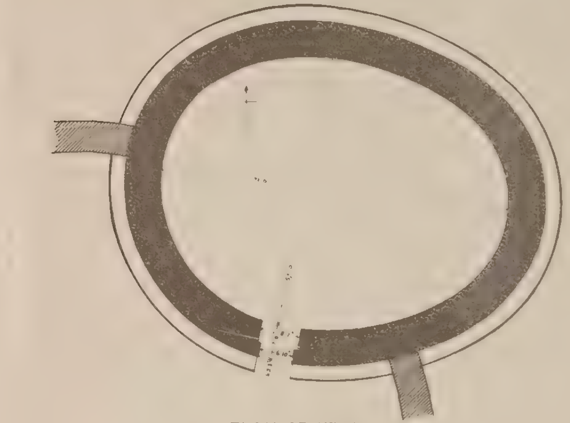




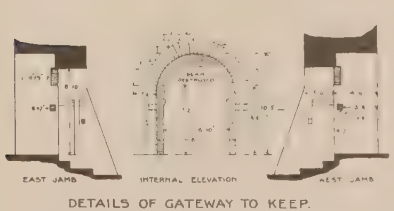
DETAILS OF LOOPHOLE AT S.W. OF KEEP.



SKETCH OF CORBELS



PLAN OF KEEP



DETAILS OF GATEWAY TO KEEP.

Sidney Toy, F.R.I.B.A. London. Mens. et Delt.

Trematon Castle

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throughout the county. John Howard visited the gaol in 1779 and some extracts from his report may be of interest: 'This gaol, built in the large green belonging to the old ruinous castle, is very small; house and court measuring only 52 feet by 44; and the house not covering half that ground. The prison is a room or passage 23½ feet by 7½, with only one window 2 feet by 1½; and three dungeons or cages on the side opposite the window; these are about 6½ feet deep; one 9 feet long; one about 8; one not 5: this last for women. They were all very offensive. No chimney: no water: no sewers: damp earth floors: no infirmary. The court not secure; and prisoners seldom permitted to go to it. . . . I once found the prisoners chained two or three together. Their provision was put down to them through a hole (9 inches by 8) in the floor of the room above (used as a chapel).' After referring to the ravages of a fever ensuing on these conditions he continues: 'I learned that a woman who was discharged just before my first visit (by the grand jury making a collection for her fees) had been confined three years by the ecclesiastical court, and had three children in the gaol.'[1]

TREMATON CASTLE

Trematon castle is mentioned in Domesday under the lands held of the count of Mortain by Reginald de Valletort. '*Idem tenet de comite Tremetone. Brismar tenebat T.R.E. . . . . Ibi habet comes unum castrum et mercatum redd' iij solidos.*'[2] The Valletorts appear to have been in possession of the castle until they died out in the fourteenth century, and their heirs then sold it to Edward III from whom it passed to the duke of Cornwall in 1337. It would appear that when acquired by the duke the castle was in good state of repair and had probably been in fairly recent occupation. The roll of seisin then made states that there was at Trematon 'a certain castle well walled', and, after noting within the bailey a hall with chamber and kitchen 'which Edmund formerly count of Cornwall built' and a chapel, the description concludes 'and be it known that the said buildings need no great reparation except as to their yearly sustentation only and they may be sustained for 60 *s.* yearly'.[3] The hall built by Edmund was *de plaustro,* probably timber-framed with plaster panels.

The Black Prince does not appear to have visited the castle, and its neglect probably dates from this period. It was in ruins when visited by Leland about 1540. He says 'By S. Stephanes and in S. Stephanes paroch is the greaunt and auncient castelle of Tremertoun upon a rokky hille: whereof great peaces yet stond and especially the dungeon. The ruines now serve for a prison.'[1] And Norden in 1584 describes the castle as 'disgraced by the longe wante of Princelye presence whereby it falleth daylie to ruyne and decaye'.[2] Carew, about 1600, finds that 'all the inner buildings are sunk into ruin, only there remain the ivy tappissed walls of the keep, and basse court, and a poor dwelling for the keeper of the gaol'.[3] The castle was held for a short time during the Cornish Rebellion of 1549, but was surrendered and not taken by force. And it was again occupied for a short period during the Civil War but was not slighted. In 1807 the lessee from the Duchy built a large house in the bailey and pulled down a long portion of the curtain wall which impeded the prospect of the estuary from the house.

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[1] *The state of the prisons of England and Wales,* John Howard, 1784, pp. 391–2.

[2] D. B. Cornwall. Terra Comitis Moritoniensis.

[3] Caption of Seisin, 11 Edw. III. E. 120, 1 (26) (29).

Despite this modern loss Trematon Castle preserves much of its original character. The shell of the keep is practically intact and a large portion of the curtain wall, including the parapet, still stands. The gatehouse was rebuilt during the thirteenth century, but the structure of that period also remains in almost perfect condition. The castle consists of a shell keep, built on a high natural hillock, and a bailey extending south-west from the keep, the curtain wall of the bailey being carried up the mound on the east and west to join the keep (pl. LXII). On the east and north-east of the bailey the curtain wall is practically intact, and has a sallyport at its north end, but beyond the sallyport the wall has been destroyed. The corresponding portion of the wall on the west, however, running up the mound from the gatehouse remains fairly complete to within a few feet of the keep. There is now no vestige to be seen of the hall and chapel formerly in the bailey.

The gatehouse, though its windows have been enlarged, is one of the most beautiful and untouched examples of its period (pls. LXI, LXII, and LXIII). The gateway was defended by two portcullises, one placed immediately inside the outer wall and the other immediately inside the wall towards the bailey, and a two-leaved gate placed midway between the portcullises. The gate and both portcullises have disappeared but the stonework itself is in almost perfect condition. Two loopholes, one facing south and the other east, guarded the approach from the outside, while the passage itself was defended from two mural chambers in the lateral walls between the gate and the second portcullis. There are two floors above the gateway, approached by a newel stairway at the north-west corner. The first floor has a central room with mural chambers at the east end of the lateral walls, and the second a larger room with no chambers but a garderobe at the north-west corner, which projects slightly on the outside face of the wall and is entered from the stairway. There are two stone fireplaces, one on each floor, of precisely similar design. The fireplace is flanked by engaged

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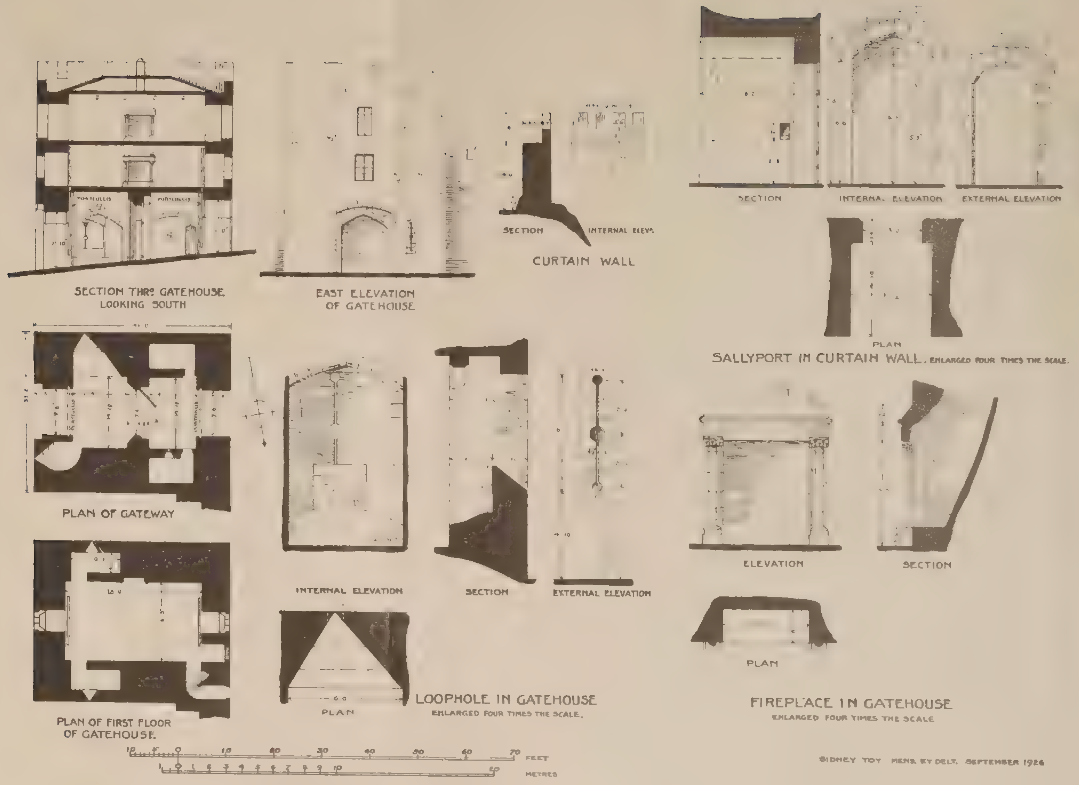
[1] *Op. cit.*, vol. i, 210.

[2] Harl. MS., 6252, fol. 73.

[3] *Op. cit.*, second book, fol. 111.



Trematon Castle. The Gatehouse, and other details

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shafts supporting a slightly projecting hood, the shafts having foliated capitals and moulded bases (pls. LXIII and LXIV, fig. 1).

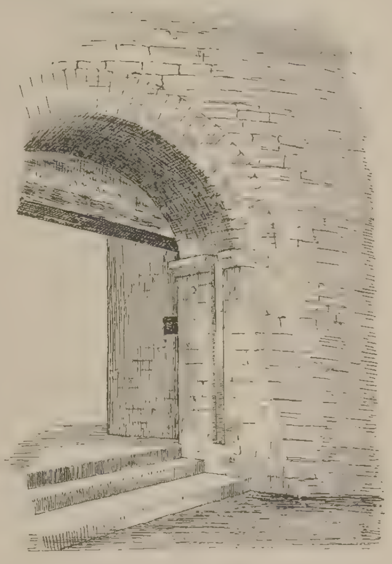

Fig. 8. Trematon Castle. Gateway of the Keep, from without.

The keep is ovoid in shape. Its wall is thinner than the shell at Launceston so that although its greater axis is only 4 ft. longer externally, internally it is nearly 14 ft. longer than the other. The wall has a deep plinth and batters considerably in its rise of 27 ft. to the rampart walk. The parapet is complete all round. With one exception its merlons are solid, but at the south-west of the keep there is one loophole of late twelfth-century date in a perfect state of preservation. The loophole appears to have been inserted in order to command the bailey from the keep (pls. LXI, fig. 1 and LXII). The gateway into the keep is 6 ft. 10 in. wide and has a round head springing from chamfered imposts similar to the fragment at Launceston (fig. 8 and pls. LXII and LXIV, fig. 2). The gate itself was square-headed and closed against a great timber lintel 13 ft. long and 2 ft. deep at the centre. This beam was built into the jambs of the gateway, and, stretching across the upper part of the arch, formed a kind of tympanum. The sockets for the ends of the lintel still remain, but the lintel itself is gone. The gate was originally secured by a heavy timber bar. The outer jambs also have been cut and grooved for later and less substantial means of closing the entrance.

Nothing remains of the keep except the shell (pl. LXII). But that there were buildings within the shell is obvious from the band of corbels, cut for beams, which is carried round the wall inside, near the rampart walk. Borlase, who visited the castle about 1750, after stating that the whole area within the keep had been converted into a garden, continues: 'the man who shewed the castle and made the garden for his own use, remembers a chimney, and some parts of walls standing, of which there are now no traces. The holes for the beams are plain, and in two rows, but both so near the top of the rampart that I imagine there could be but one flight of rooms'.[1] At present there are no stairways to the rampart walk or trace of any, and there are no windows in the shell. The windows would be constructed in the inner wall, facing a central courtyard, and it is probable that the stairways ran at right angles to the shell and were removed with the internal buildings with which they were associated.

[1] *Observations of the Antiquities . . . of the County of Cornwall*, by William Borlase, 1754, p. 321.

Restormel Castle

Restormel castle is not mentioned in Domesday and its early history is obscure. The Cardinans to whom it belonged held large estates in its vicinity by the end of the twelfth century, and they founded the town of Lostwithiel, near the castle, long before that period. This appears from a charter of about 1196, preserved among the municipal archives at Lostwithiel, granted by Robert de Cardinan to the town. Robert added considerably to his estates by marriage and he, and after him his son Andrew, the last of the line, were among the richest landowners in Cornwall. In 1264 Thomas Tracy, who had married Isolda, daughter and sole heir of Andrew, surrendered the castle of Restormel and the barony of Cardinham to Ralph Arundel 'to be held on behalf of Simon de Montfort as a security against his enemies who had threatened his destruction'.[1] Following on the defeat and death of Simon de Montfort in 1265, the castle appears to have become the property of Richard, earl of Cornwall, perhaps in response to the king's appeal on behalf of his brother. Richard had been taken at the battle of Lewes and imprisoned for over a year, while his lands and goods had been alienated and scattered. On 29th October 1265, following Richard's release, Henry appealed for him that 'whereas he is now, for reasons of which the king is silent at present, charged with debt, for which the king pities him, the king requests the tenants of the said Richard their lord to give him such an aid for the relief of his said goods, chattels, and debts, that he shall be bound to show him self favourable to them in the future, and so that they shall deserve the king's special thanks'.[2] The castle occurs among the property of Edmund, Richard's son, in the inquest taken on his death in 1300.[3] From this time it followed the fortunes of the earldom and subsequently of the duchy of Cornwall.

During the first half of the thirteenth century Robert and Andrew Cardinan must have devoted a considerable portion of their wealth to improvements and alterations to the castle, for a good deal of work done here is referable to that period. But on passing into the possession of the earls of Cornwall, Restormel appears to have been neglected. Richard was far too much engrossed in his activities abroad, between his release from prison in 1265 and his death in 1271, to devote much attention to Restormel. And it does not appear that Edmund was very careful about its upkeep, for in the inquest made at his death, above

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[1] D. & H. Lysons in *Magna Britannia*, 1814, p. 176, state that this deed is among the documents of the Arundel family. Attempts to verify the statement, *Memorials of Lostwithiel*, by F. M. Hext, 1891, p. 204, that Richard received Restormel by deed of gift from Isolda Tracy, 1265, have been unsuccessful.

[2] Patent Roll. 50 Hen. III, 1265. Memb. 46. *Cal. Pat. Rolls* (1258–66), 495.

[3] *Calendar of Inquisitions*, vol. iii, p. 457, 29 Edw. I, 1301.

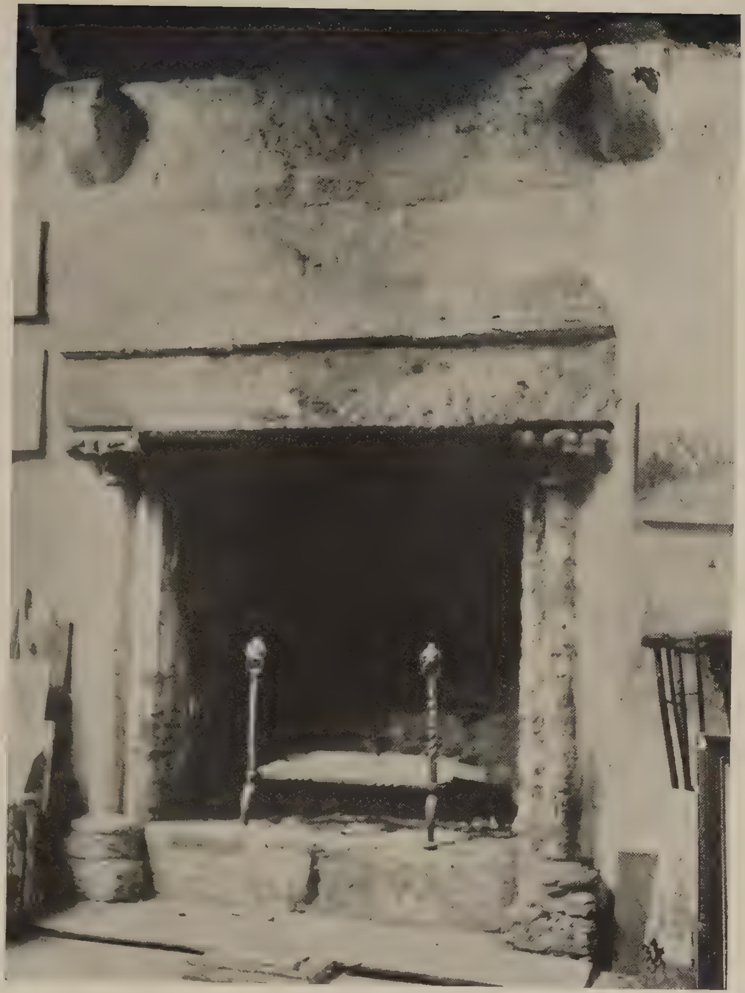

Fig. 1. Trematon Castle. Fireplace in the Gatehouse

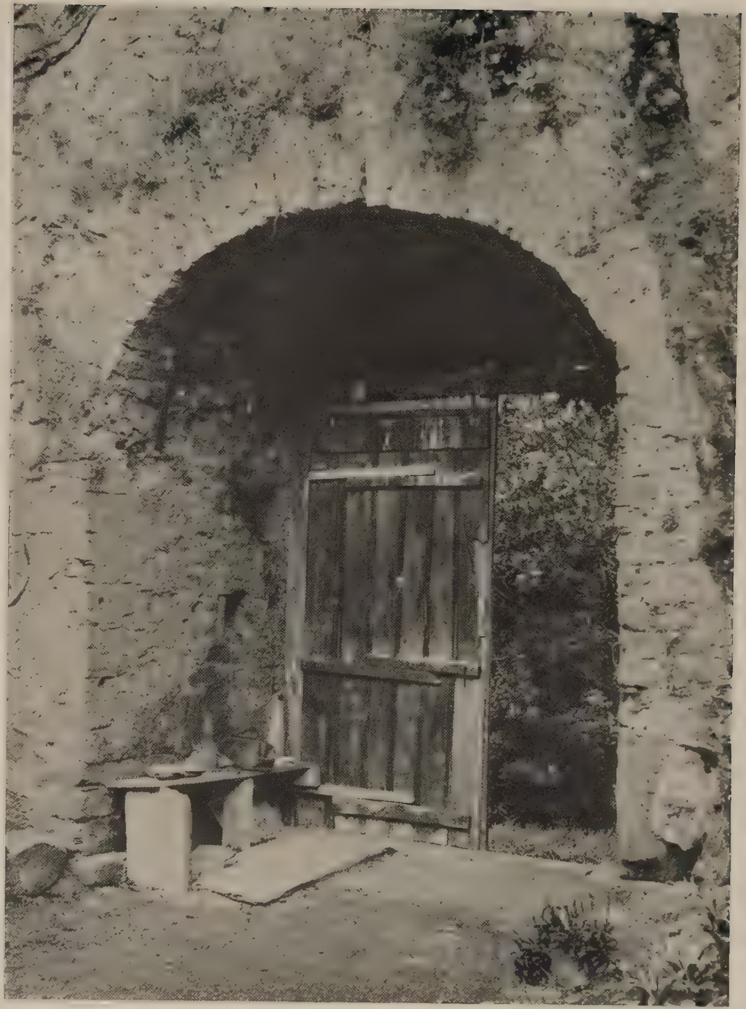

Fig. 2. Trematon Castle. Gateway of the Keep, from within

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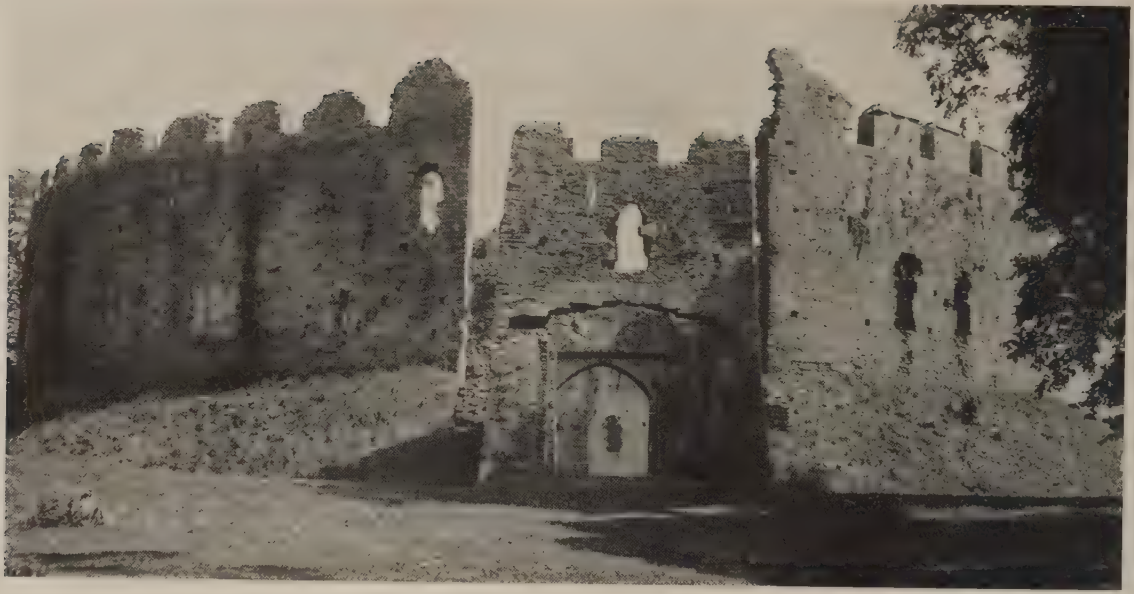

Fig. 1. Restormel Castle. The Keep, looking directly towards the gateway

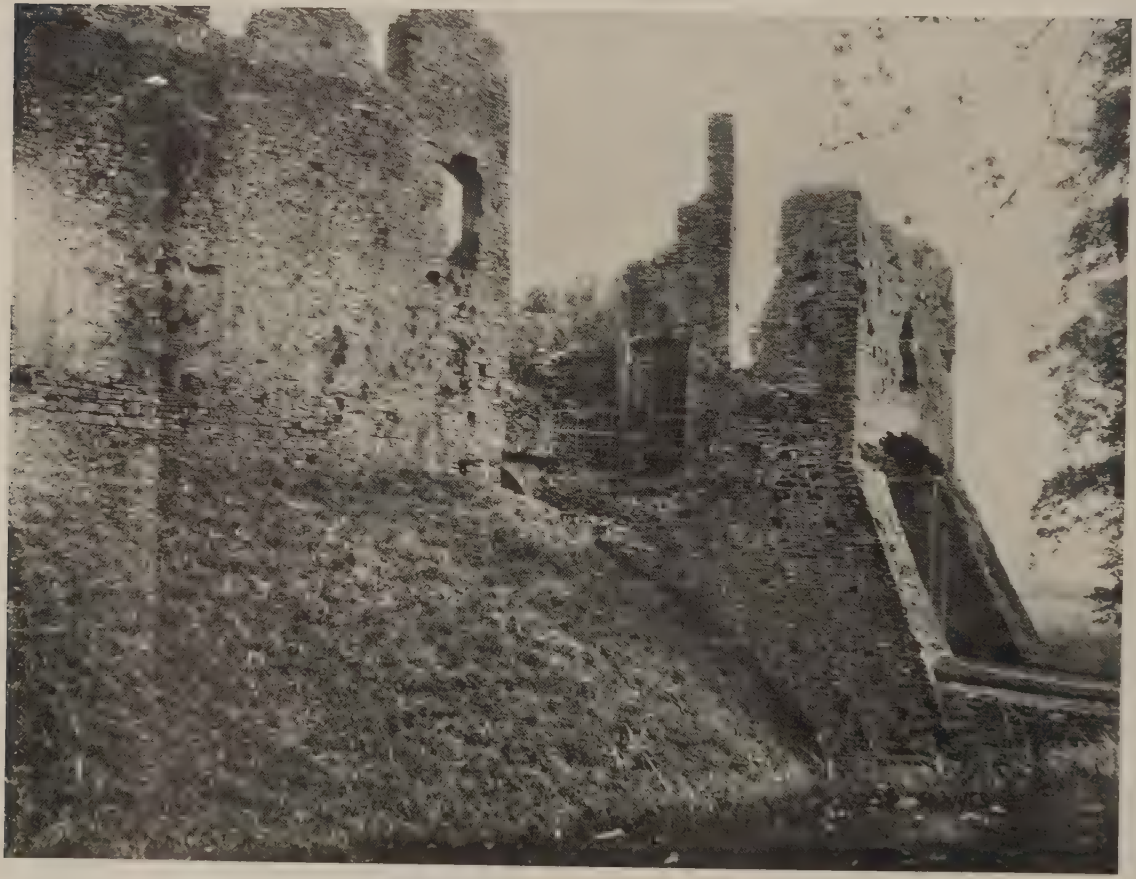

Fig. 2. Restormel Castle. The Keep from the west, showing the gateway on the right

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mentioned, the castle is returned as being worth nothing by the year as to services. Neglect of the castle continued until it became the property of the Duchy, many of the buildings then being found in a ruinous condition.

The Black Prince, as duke of Cornwall, paid two visits to Restormel and held his court there. The first visit was made in the autumn of 1354 and the second in the winter of 1362, when the prince spent Christmas at the castle.[1] Great preparations were made for these visits, and orders for repairs and improvements issued.[2] This was the supreme moment of the castle's existence, and, following on the death of the Black Prince, Restormel was again neglected and allowed to fall into irretrievable decay. Leland found that 'The base court is sore defaced. The fair dungeon yet stondeth. A chapel cast out of it, a newer work than it, and now onrofid, a chapel of the Trinite in the park not far from the castelle.'[3] Norden, forty years later, finds the sight of so fair a building, despoiled of its dressings, and in such utter ruin and decay, so distressing to his sense of fitness, that he recommended that it should be pulled down while the materials were yet of use. In noting a ruined oven, 14 ft. diameter, Norden says, 'If the proportion of necessarie offices in auntient decayde buyldinges may argue equall hospitalitie, here was noe want, . . . and it is to be thought that in those dayes they buylded for use, and not as men now doe their great and glorious howses for ostentation, great halls and little meat, large chymnies and little smoak.'[4] Carew, who visited Restormel about 1600, follows in the same strain and often in similar terms. He says that the large oven was in the base court, and that the base court even in these days 'is rather to be conjectured than discerned, by the remnants of some few ruins'. He continues, 'the inner court grounded upon an intrenched rock, was formed round and had his outer wall thick, strong, and garretted, his flat roof covered with lead, and his large windows taking their light inwards. It consisteth of two storeys besides the vaults, and admitted entrance and issue by one only gate, fenced by a Portcullis. Water was conveyed thither by a conduit from the higher ground adjoining'. He then bewails its present condition '. . . for the Park is desparked, the timber is rooted up, the conduit pipes taken away, the roof made sale of, the planches rotten, the walls fallen down, and the hewed stones of the windows, doors, and clavels (fireplaces) plucked out to serve private buildings, only there remaineth an utter defacement to complain upon this unregarded distress'.[5]

Notwithstanding its ruinous condition the castle was patched up in 1643 and held for the Parliament against the Royalists, but it fell before Sir Richard

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[1] *Register of Edward the Black Prince*, part ii, 62–3, 65, 113, 198.

[2] *Ibid.*, 9, 60, 128, 168, 185, 198.

[3] *Op. cit.*, vol. i, 205.

[4] Harl. MS., 6252, fols. 46–7.

[5] *Op. cit.*, second book, fol. 138.

Grenville after only a few days' resistance. This was its last occupation, for it was not held subsequently against the victorious parliamentary forces. The commissioners appointed in 1649 reported that the 'said castle is utterly ruined, nothing but the out walles thereof remaining which are not where they stand worth the taking down'.[1]

But for the defect already noted, Restormel castle occupies a commanding position. There is a rapid fall towards the river from three sides of the great keep. But on the north-west a flat expanse of ground, practically level with the courtyard of the keep, stretches from the keep to the rising ground beyond. This flat ground is the site of the bailey. No trace of a curtain wall remains, and the only vestiges of the buildings which formerly stood in the bailey are a few scattered fragments of foundations. The best description of these buildings, and of the keep when complete, is contained in the roll of seisin of 1337, of which the following is a translation:

> There is there a certain castle well-walled, and there are within the walls of the same castle one hall, three chambers and as many cellars, one chapel whereof the glass of the greater window is for a great part broken and needs speedy reparation lest it become worse, one image of Mary, of precious stone so it is said, in the same chapel in alabaster,[2] two bells in the same, one weighing 100 lbs. which belonged to the hermitage late of friar Robert.[3] One stable for six horses. Three chambers over the gate, covered with lead in a decayed state, and the leaves of the gate of the same castle are weak and insufficient. And there are outside the gate of the said castle one great hall with two cellars and one convenient chapel, the kitchen of the same hall and a certain passage leading from the hall to the kitchen are ruinous and need speedy reparation.[4] There are there three chambers and three cellars below and one bakehouse out of repair, and two stables for twenty horses on either side of the gate, these old and ruinous, and there is there a certain water conduit made of lead through which water is conveyed into the castle to every domestic office therein[5] which wants to be newly repaired with lead.[6]

The keep is nearly circular in shape and is surrounded by a wide and deep

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[1] Parliamentary Survey, Cornwall, 1649, 35.

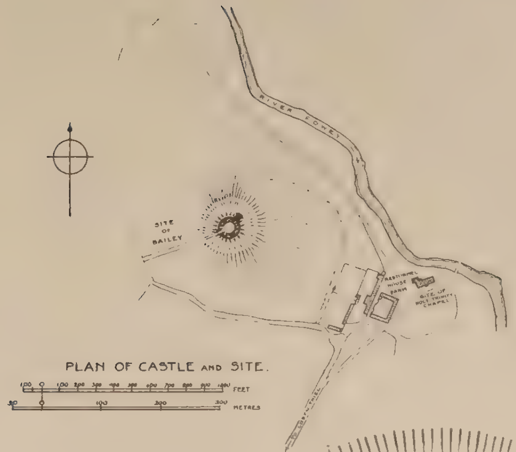
[2] The descriptions of the castles of Launceston, Restormel, and Trematon (as well as of Tintagel) occur on the roll in their order, and are repeated on the last folio, fol. 29. Reference to the image occurs on fol. 29 only, and *en alabaustro* has been inserted above the line—as by one who knew the name of the 'precious stone'.

[3] References to the Hermitage of the Trinity in the park occur in the *Register of Edward the Black Prince*, part i, 22, 138, part ii, 63. It probably stood at the foot of the hill on the site now occupied by Restormel House Farm.

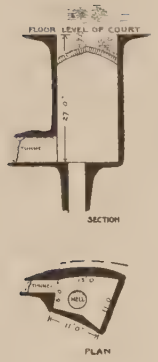
[4] Some months ago foundations were discovered in the bailey which may have belonged to the hall 'outside the gate', but these foundations have been removed.

[5] Orders for the repair of this conduit were issued in 1354 and 1357. *Register of Edward the Black Prince*, part ii, 60, 128.

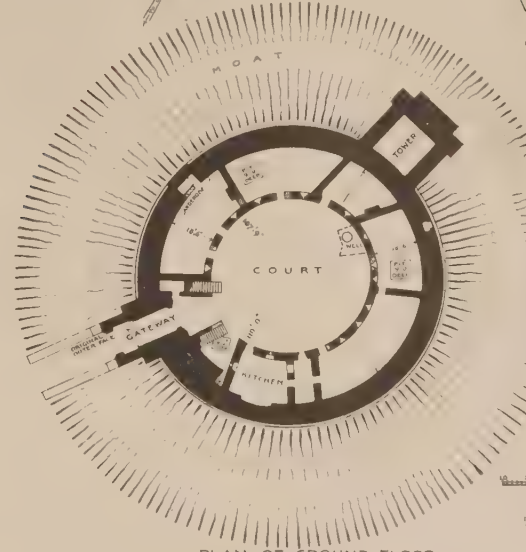
[6] Caption of Seisin, 11 Edw. III, E. 120, 1 (8), (29).


RIVER FOWEY
SITE OF BAILEY
RESTORMEL HOUSE FARM
SITE OF HOLY TRINITY CHAPEL
100 0 100 200 300 400 500 600 700 800 900 1000 FEET
50 0 100 200 300 METRES

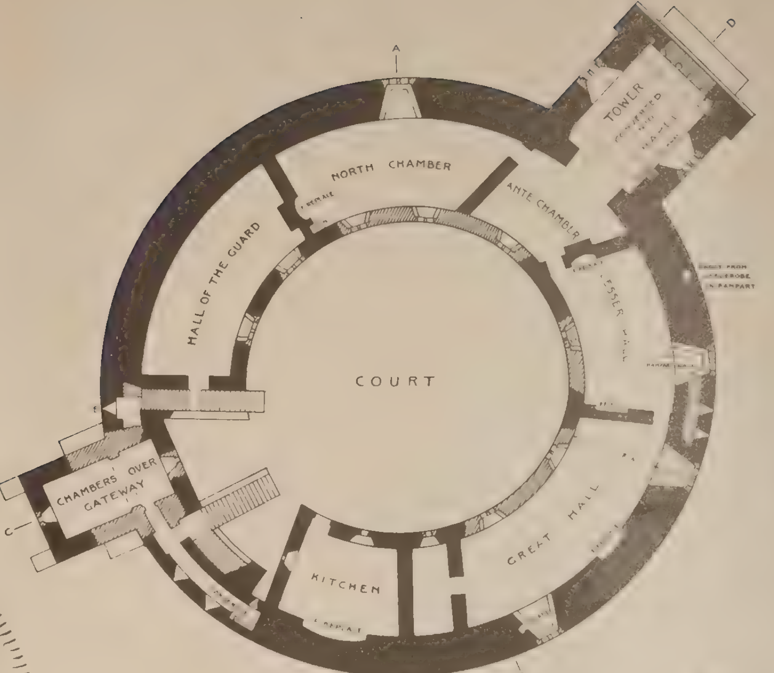
PLAN OF CASTLE AND SITE.



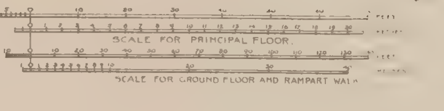
WELL CHAMBER

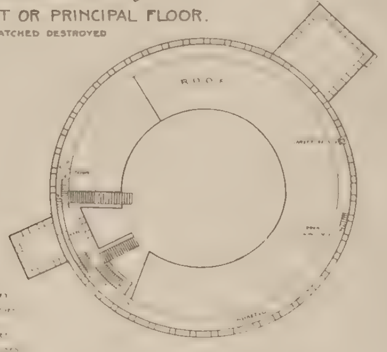


PLAN OF GROUND FLOOR.



PLAN OF FIRST OR PRINCIPAL FLOOR.
PARTS HATCHED DESTROYED

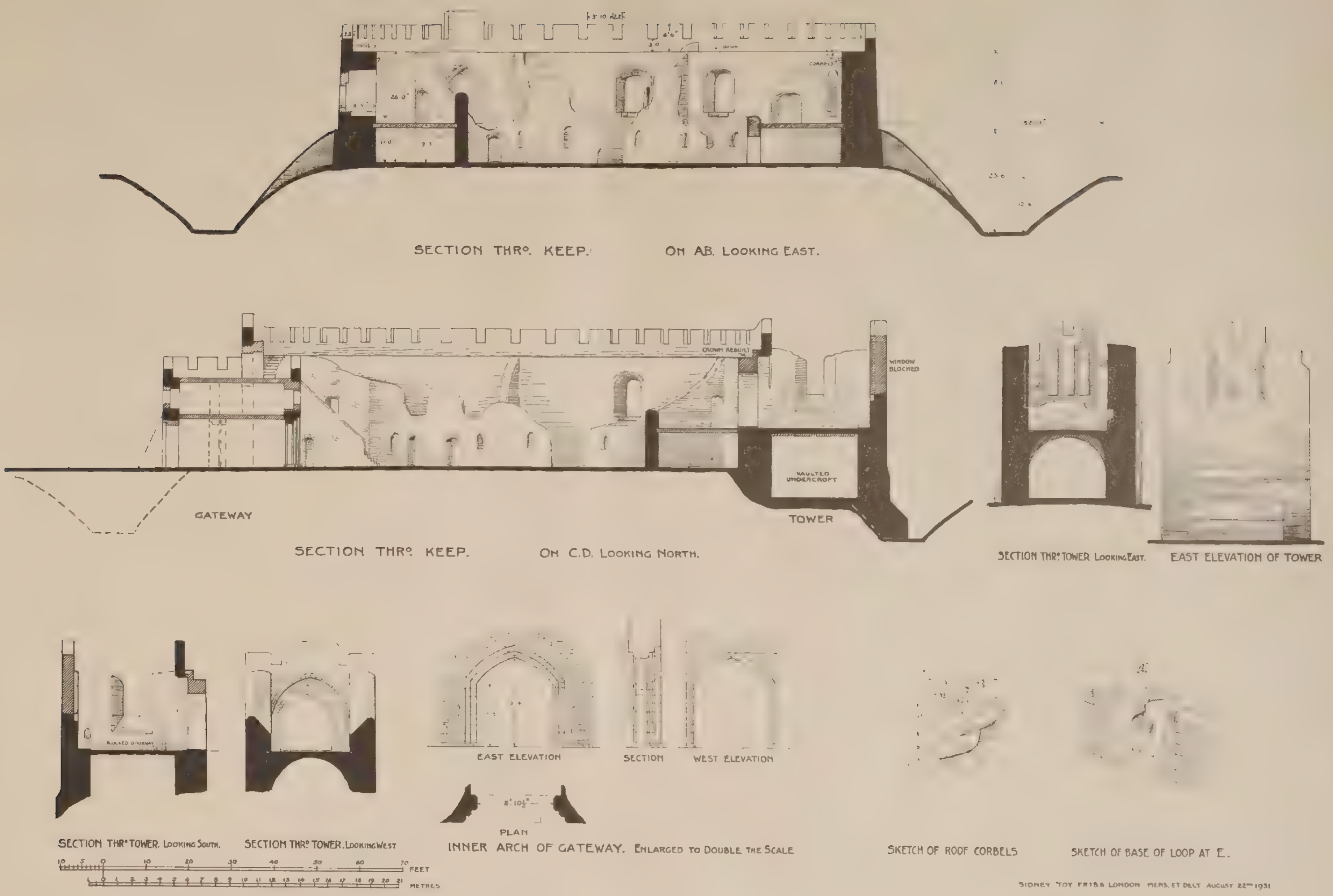

10 5 0 10 20 30 40 50 60 FEET
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 METRES
SCALE FOR PRINCIPAL FLOOR.
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 FEET
0 1 2 3 4 5 6 7 8 9 10 20 30 40 METRES
SCALE FOR GROUND FLOOR AND RAMPART WALK



PLAN OF RAMPART WALK.

Sidney Toy, F.R.I.B.A. London. Mens. et Delt

Restormel Castle. The keep



SECTION THRº KEEP. ON AB. LOOKING EAST.

SECTION THRº KEEP. ON C.D. LOOKING NORTH.

SECTION THRº TOWER LOOKING EAST. EAST ELEVATION OF TOWER

SECTION THRº TOWER. LOOKING SOUTH. SECTION THRº TOWER. LOOKING WEST

INNER ARCH OF GATEWAY. ENLARGED TO DOUBLE THE SCALE

SKETCH OF ROOF CORBELS

SKETCH OF BASE OF LOOP AT E.

SIDNEY TOY FRIBA LONDON MENS. ET DELT. AUGUST 22nd 1931

Restormel Castle. The keep

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moat (pls. LXVI and LXVII). It is by far the largest of the shell keeps here described, and its halls, living rooms, and domestic offices must have been on a scale incomparably more elaborate than any of the others. The shell wall has an average internal diameter of 109 ft., is 8 ft. 6 in. thick at the head of the plinth, and 26 ft. high from the level of the courtyard to the rampart walk. It is strengthened on the outside by a bold plinth 8 ft. high, and 9 in. wide at the head, now entirely covered by accumulated soil. After the shell was built, living apartments and offices were contrived by the construction of an internal ring-wall and cross-walls joining the ring with the outer shell. Though not bonded to the shell these walls are probably part of the original design. Two stairways, one on either side of the entrance gate, led to the rampart walk, which was continuous all round the shell, and still retains its parapet fairly complete. Here also the merlons of the parapet are unpierced. At a later period, probably towards the end of the twelfth century, a tower of two stages was built on the north-east side of the shell, projecting into the moat and rising to the same height as the rest of the keep. During the first half of the thirteenth century extensive alterations were undertaken, actuated alike by desire for domestic improvements and defence. The upper stage of the tower was converted into a chapel, the living rooms were made more habitable, and the gateway was rebuilt and fortified. It is probable that the large windows pierced in the shell are of this period. Originally, all the windows opened on to the court from the inner walls.

The entrance gateway is now in a most ruined condition, and only the inner archway remains intact (pls. LXV and LXIX, fig. 2). The outer arch with the actual gateway and portcullis, still to be seen in 1600, has been destroyed, and the only vestige remaining is a fragment of the base on the south side. The gateway stood 10 ft. within the present outer face of the building. The extension was made at some period now, in the absence of all detail, difficult to determine. There were three chambers above the gateway, one storey probably having two chambers. The living rooms and domestic offices of the keep are arranged round a central courtyard, 65 ft. in diameter, and were of two storeys. The ground floor is on a level with the courtyard, and contains the store rooms and domestic offices (pl. LXVI). Three pits about 8 ft. square and 9 ft. deep excavated in the floor, two within the rooms and one at the foot of the south stairway to the rampart, are probably the vaults referred to by Carew above.

The great hall was on the first floor at the south-west of the courtyard, with the kitchen on the south, and a lesser hall on the north. It was lighted by two large windows in the shell wall, as well as by others in the inner wall. There is a fireplace between the outer windows. A vertical shaft about 10 in.

square opens at the lower end on to a hole in the south jamb of the south window, and ascends to the rampart walk. This shaft suggests a speaking-tube for communication between the hall and the rampart. The shaft is not a flue, and there would be no occasion for ventilation. It would appear from the evidence of external beam-holes, that at one time a timber gallery was built in front of the hall, looking on to the courtyard, with probably a stairway down to the courtyard itself (pl. LXVIII, fig. 2). Approach to the hall from the kitchen was probably by means of a stairway in the small apartment between them. The kitchen extended to the full height of both storeys, and was lighted by two windows. One of these windows, which is 1 ft. 3 in. wide and 6 ft. 3 in. high, and has a flat head, still remains. It is placed high in the west wall, and is the only complete window remaining in the keep. The fireplace in the south was 13 ft. 6 in. wide. The lesser hall communicated with the great hall on the south, and the antechamber of the chapel on the north. It had a fireplace at the north end, and a large window in the shell wall. From the south jamb of this window a mural stairway ascends to the rampart walk (pls. LXVI and LXVIII, fig. 2).

There are two other rooms on the first floor, one on the north of the keep and the other adjoining it on the east. The first was entered from the antechamber to the chapel. It had a large window in the shell wall, and a fireplace at the east end with a small oven adjacent. The second was isolated from the suite of rooms just described, and appears to have been devoted to those employed in the defence of the castle; in other words it was the hall of the guard. It was entered by a doorway at the south end opening on to the stairway to the rampart, but there is no communication with the adjoining room at the other end. There is no fireplace, and the only windows are two in the inner wall. Parts of the inner jambs with the window seats of these windows still remain. There are three garderobes. One is at the end of a mural passage entered by a doorway off the south stairway to the rampart. Another, the inner wall of which is broken down, is in the undercroft of the hall of the guard; and the third is at the east of the rampart walk.

All the dressings of the windows, doorways, and fireplaces have been torn away, with the exception of the window in the kitchen noted above. Near the gateway the base of a loophole, part of the thirteenth-century defences, remains, though all the rest of its dressed stonework has been taken away.[1] Many of the stone corbels for the original roof, precisely similar in detail to those at Trematon castle, are still in position (pl. LXVII). The roofs as they existed before the castle was finally abandoned were generally flat, and are so described by Carew. But that over the guard's hall must have been a low-

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[1] The base of a similar loop lies near the porch of Restormel House Farm.

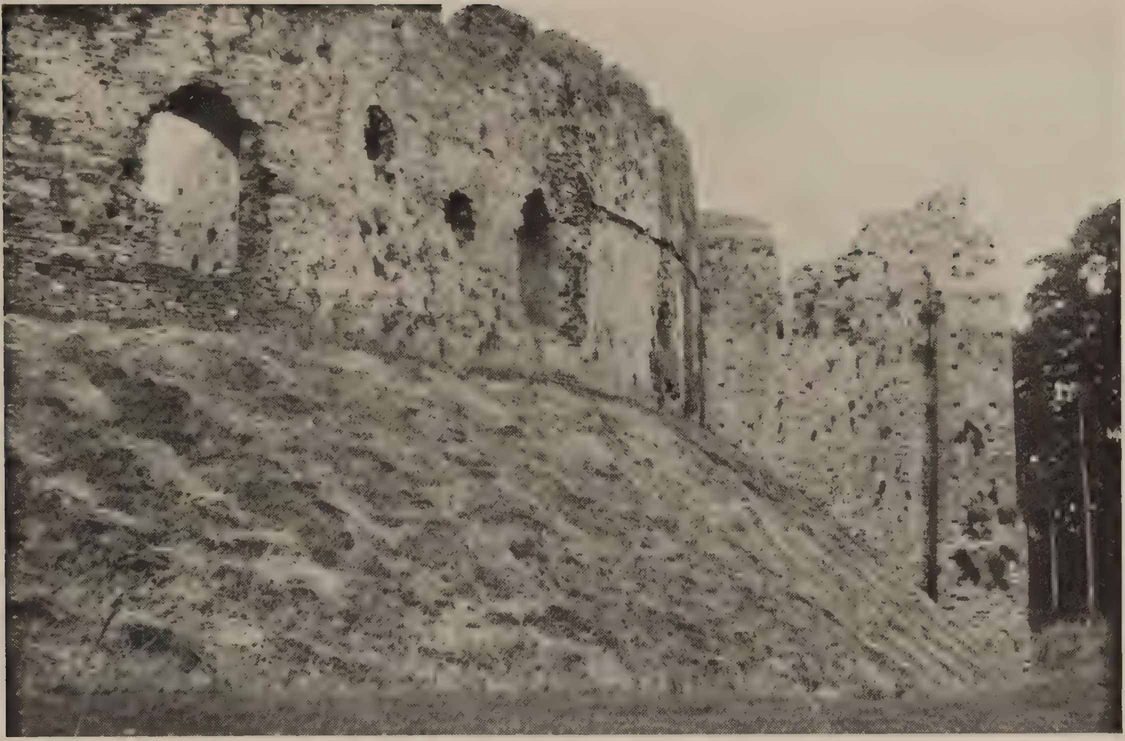

Fig. 1. Restormel Castle. The Keep from the east, showing the Tower

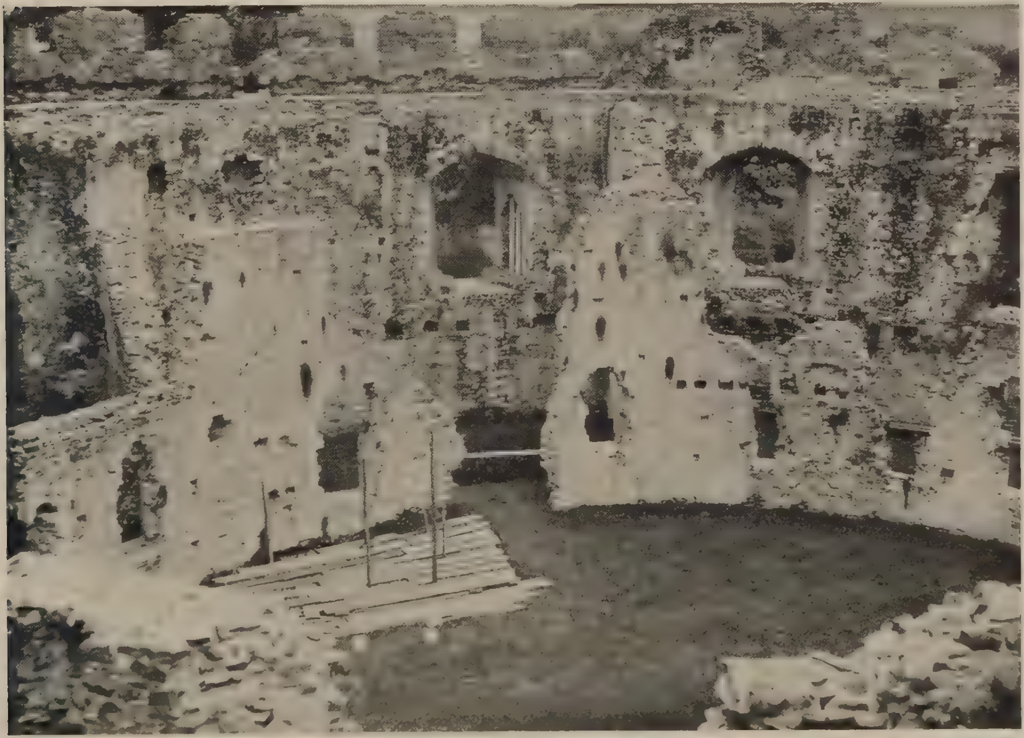

Fig. 2. Restormel Castle. Interior of the Keep, showing the Great Hall, on the right, and the Lesser Hall

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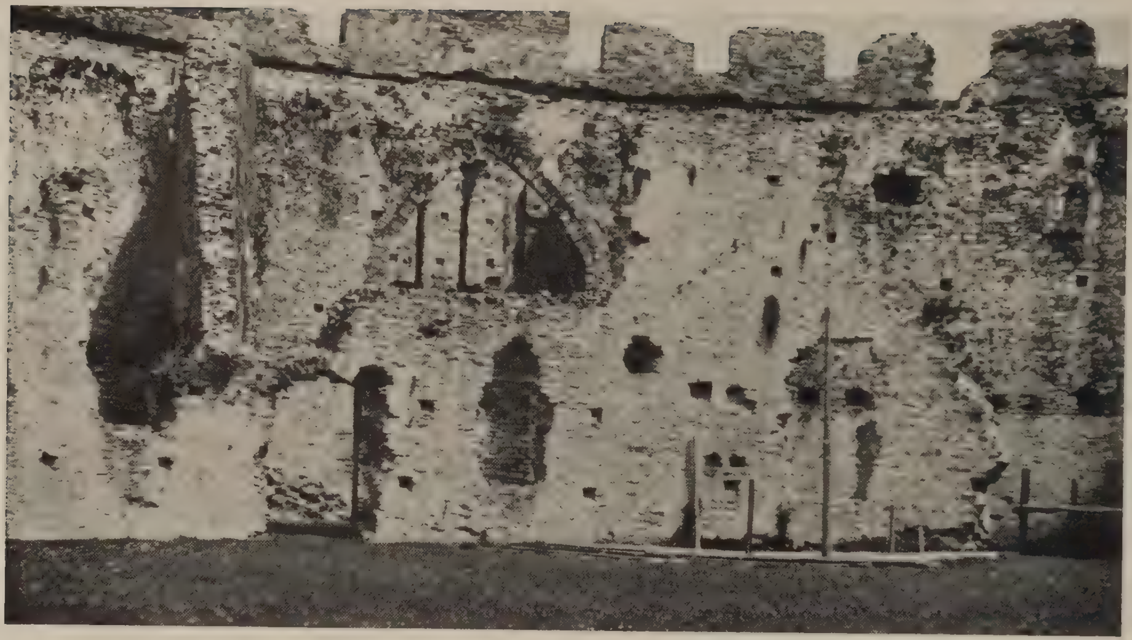

Fig. 1. Restormel Castle. Interior of the Keep, looking towards the Antechamber and the Chapel

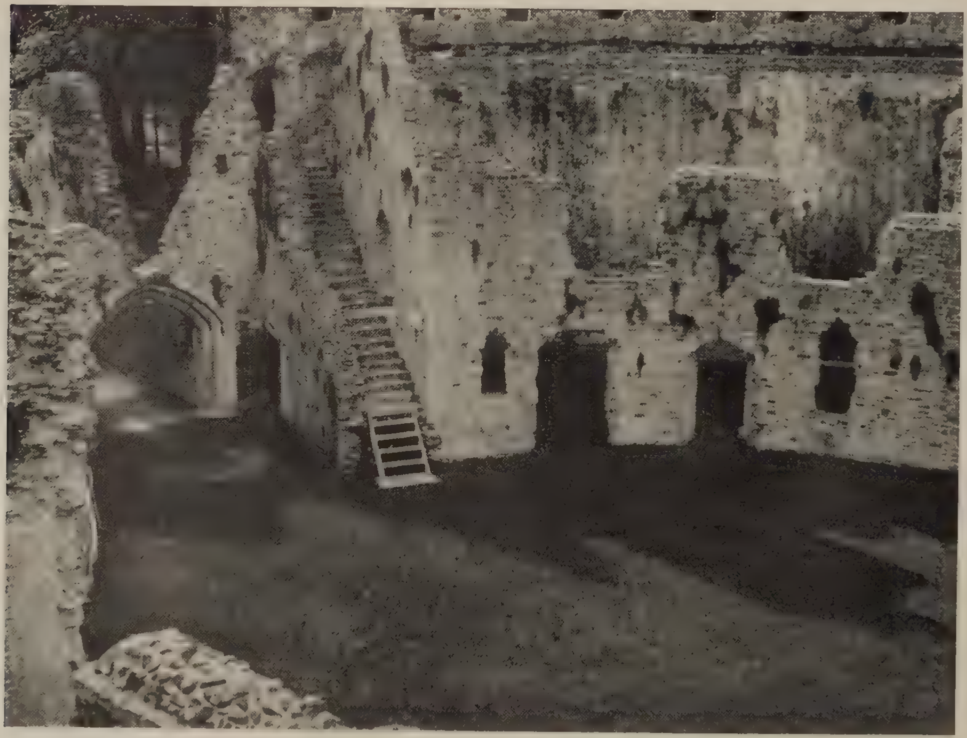

Fig. 2. Restormel Castle. Interior of the Keep, looking towards the Gateway, the Steps to the Rampart Walk and the Hall of the Guard

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pitched gable roof, the south gable of which still remains.[1] As was usual where suitable flat paving stones were difficult to obtain, the leadwork of the roof was carried across the rampart walk, and flashed up against the parapet wall. Here the rubble below the flashing has become loose or been pulled away, leaving a deep groove all round the base of the parapet inside. The rainwater from the roofs was carried away through holes piercing the parapet.

Other holes, piercing the parapet at regular intervals, were for the beams of the hourds or brattices—temporary wooden platforms projecting out from the parapet to protect the base of the walls against sapping. On 14th Feb. 1360 orders were issued to John de Kendale 'to cause the brattices of the castle of Rostormel, which are broken and fallen down, to be repaired at as small a cost as possible'.[2] On 4th Dec. 1361 he was ordered 'to mark and take down the wooden brattices of the castle of Rostormel, and put them in safe keeping each by itself, so that they be ready when needed'.[3]

On the east side of the courtyard there is a deep well which is dug from the bottom of an irregularly shaped chamber built against the inner wall. The chamber is 13 ft. long by average 8 ft. wide and 27 ft. deep. A tunnel leading northward from the floor of the chamber, and now filled with earth except at the entrance, has yet to be investigated.

On close examination it is clear that the tower, called the chapel, has been subjected to considerable alterations since first built. The undercroft is probably vaulted: all access to it is now blocked with masonry. The upper stage was entered from the antechamber through an arch under the rampart walk. The crown of the arch had fallen, but was rebuilt some thirty years ago. There was a window, probably of two lights, in each of the lateral walls of the chapel. At the east end of the south wall there is a piscina, and at the west end a blocked doorway which probably led to the undercroft. On the north wall, near the east, there is one jamb of what was probably a recess (pls. LXVI and LXVII).

At present, though the lateral walls are 6 ft. thick, the east wall is only 3 ft. 6 in. thick. About half the thickness of the east wall appears to have been cut away from the inside, for projecting above the rough floor is still to be seen the bottom course of the destroyed portion, extending 3 ft. in from the present face. On the west, the wall of the shell keep facing the tower has also been cut back to a corresponding extent, the recess being arched over. This enlargement at both ends was doubtless effected when the building was converted into a chapel. On the inside face of the east wall are four long deep grooves, which at first sight are difficult to account for. They are regularly spaced, the central grooves are 9 in. wide, and the outer 2 ft. wide. On the outside face of the wall, however, it is seen that the whole central portion of the wall at the back of the grooves has been rebuilt. Here was doubtless the 'greater window' mentioned in the roll of seisin, and it was of three lights. It would appear that when the castle was patched up and fortified in 1643, the whole window was blocked, and subsequently, when the castle was systematically plundered, the dressings of the window were roughly torn away leaving only the grooves to indicate the positions occupied by the jambs, mullions, and the sill.

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[1] The roofs were repaired by the Black Prince whose agents had taken 'by way of loan, on behalf and in the name of the prince, 102 oaks of a shape for roof beams for the repair of the prince's castle of Rostormel' and were ordered to return 'an equal number of equally good oaks'. *Register of Edward the Black Prince*, part ii, 185.

[2] *Ibid.*, 168.

[3] *Ibid.*, 185.

Before concluding I desire to express my thanks to my wife, and to the Rev. James Toy, for assistance in measuring the castles ; to Brig.-General T. C. Porter, C.B., D.L., J.P., for permission to examine Trematon Castle, and to the Town Clerk of Launceston for permission to examine Launceston Castle; to Mr. R. L. Clowes for directing my attention to certain documents preserved in the office of the duchy of Cornwall, and to our Fellows the Rev. E. E. Dorling and Mr. L. F. Salzman for valuable assistance with the documents at the Record Office.

XI.—*Recent Discoveries in the Nave of Westminster Abbey. By* LAWRENCE E. TANNER, *Esq., M.V.O., F.S.A., Keeper of the Muniments of Westminster Abbey, and* A. W. CLAPHAM, *Esq., C.B.E., Secretary.*

Read 3rd December 1931

I

THE recent discoveries in the nave of Westminster Abbey will be described in detail by Mr. A. W. Clapham in the second part of this paper, and he will indicate the architectural conclusions to be drawn from them, and the relationship between the abbey church of Edward the Confessor, and the other eleventh-century abbey churches in Normandy.

But perhaps, by way of preface, I may be allowed to indicate the interest and importance of these discoveries from what I may call a purely Westminster point of view, and show how they supplement or modify what has been previously written on the subject.

The discoveries were made by chance in the autumn and winter of 1930. During the cutting of a trench across the nave for a new heating pipe, an obstruction was encountered a few feet to the north of one of the great pillars on the south side, at a point a little to the west of the door leading to the west cloister. This obstruction proved to be part of a considerable stone foundation running east and west. It was immediately recognized that this must be the foundation of that part of the nave of the church of Edward the Confessor which remained joined on to the new choir of Henry III's building, until the present nave was begun in the second half of the fourteenth century. Hitherto, the only portions of the Confessor's church known to exist were the bases of some piers found by Sir Gilbert Scott in 1866 under the presbytery, and a portion of the apse found by Professor Lethaby in 1910 under the floor of the Confessor's chapel.[1]

In view of the importance of these discoveries, the Dean and Chapter readily gave permission for further investigations to be made and, under the general supervision of our Fellow Mr. Walter Tapper, A.R.A., the Abbey architect and surveyor, the foundations were traced until, at a point just within the existing west wall of the abbey church, the western limit of the Confessor's church was found. The ground was then opened on the north side of the nave, in the hope of finding foundations corresponding to those on the south side, but it became apparent that any foundations which had existed there must have been on the same line as the existing pillars of the nave, and must have been completely destroyed when the nave was rebuilt in the fourteenth and fifteenth centuries.[1]

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[1] *Archaeologia*, lxii, pp. 99, 100.

The existence of these extensive foundations, only a few inches beneath the present floor, was quite unsuspected, and although presumably some portions of them must have been seen from time to time in the past, their significance appears to have been overlooked.[2]

On 10th February 1910, our Fellow the Dean of Wells, then Dean of Westminster, communicated to the Society an important paper on 'The Church of Edward the Confessor at Westminster'.[3] With the greater part of that paper we are not concerned. Such evidence, both written and in stone, as then existed to determine the form and extent of the church, is fully set out and discussed therein, and his conclusions, in so far as they concern the apse, transepts, choir, etc., have been generally accepted with but slight modification. But as regards the nave, where the Dean had only written evidence upon which to depend, the result of the recent excavations necessitate a reconsideration of the evidence.

The points to be considered are those of the date and of the extent of the Confessor's nave.

(1) The Dean was concerned to show that the theory that St. Edward left his church unfinished at his death was a novel one, which had 'now come to be considered unimpeachable orthodoxy', whereas in reality, as he points out, as far as written evidence goes there is no hint 'that Edward's Church was unfinished at the time of its consecration: all the evidence goes the other way'.[4] In reaching this conclusion the Dean was influenced by the fact that neither William of Malmesbury nor any of the twelfth-century authors makes any suggestion in their references to the church that it was left an 'unfinished fragment'. Bishop Gilbert Foliot, indeed, in writing to the Pope in 1160, speaks of the church which King Edward had 'brought to a most happy completion' (*beatissime consummavit*). Above all Sulcard, 'our first Westminster historian', who was a monk of Westminster in the time of Abbot Vitalis (1076–1085), when writing of the rebuilding by the Confessor, says: 'Up to this time had lasted the same monastery which we have all seen: it was purposely destroyed that the nobler one might rise which now we see. . . . Accordingly

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[1] The massive circular foundations of the existing pillars were disclosed.

[2] e.g. in 1821 when the present stone floor was laid down (Stanley, *Annals*, p. 55), and at the burial of F.M. Sir George Pollock in 1872 whose grave abuts on the foundations. The greater part of the area excavated is, however, singularly free from later graves and in consequence very few human remains were found except at the west end where there appeared to have been some burials of a very early date.

[3] *Archaeologia*, lxii. pp. 81–100.

[4] *Ibid.*, pp. 86, 87, for references and Latin texts.

the work that had been begun was pushed forward by the King's command, and after a few years, supported on divers columns and vaulted with manifold arches on every side, being finished to the very "vestibulum" (which the Dean translates "porch"),[1] it was shown forth to the bishops for consecration, and to all the nobles of the realm.'

There is nothing in the foundations recently disclosed to disprove the Dean's theory that the church was finished at the Confessor's death. They may be of that date or they may be slightly later. The real question would appear to be the meaning of the word 'vestibulum' in the apparently rather definite phrase *usque ad ipsum vestibulum perfectum.* We may, perhaps, take it in conjunction with a sentence from the well-known description of the Confessor's church in a life of St. Edward addressed to Queen Emma, his wife (d. 1075), and probably written before the end of 1066. The writer ends his description thus: 'Now the whole of this vast and elaborate work was started so far east of the ancient church that the brethren of the place might not have to cease in the meantime from the service of Christ (i.e. the Saxon church was left untouched), and also that some part of the "vestibulum" which was to be set in between might have room to follow on' (*ut etiam aliqua pars spatiose subiret interjaciendi vestibuli*).[2]

It cannot, of course, be questioned that the ordinarily accepted meaning of the word is some kind of porch or perhaps sacristy.[3] But the passage just quoted is somewhat obscure, and in his *Westminster Abbey Re-examined* (1925) Professor Lethaby allowed himself 'to wonder whether vestibulum . . . necessarily means a western porch? I find it hard to think (he continues) that the older Saxon Church was still farther to the west than the *completed* nave of the Confessor's Church. . . . If we could suppose that vestibulum might here stand for nave which otherwise does not seem to be mentioned, then we might understand that a part of it was first interposed between the old church and the new, and that the former (i.e. the Saxon Church) was pulled down for its completion'.[4] The suggestion, however, as far as the meaning of the word 'vestibulum' was concerned, fell on rather stony ground.

My attention, however, has been called to a somewhat remarkable use of the same word in connexion with the church of St. Riquier in Picardy.[5] That church was built in 790 and pulled down in 1090. It was a cruciform building with a presbytery and apse, but had the distinctive Carolingian feature of a second transept at the west end. Above each of the transepts there was a round or octagonal tower with spiral staircases (*cochleae*) abutting on them. In an account of this church written by Hariulf about 1088 (i.e. almost contemporary with our Westminster Sulcard), the space between the central tower and the west end is thus described:

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[1] Here and elsewhere, with the exception of the word 'vestibulum', I have adopted the translation of the Dean of Wells. The actual text of the phrase above is *usque ad ipsum vestibulum perfectum.*

[2] Harleian MS. 536. Quoted in the Dean's paper.

[3] Du Cange, sub *vestibulum.*

[4] p. 15.

[5] I owe the reference to the Chronicle to Dr. Bilson. See also Mr. A. W. Clapham's *English Romanesque Architecture before the Conquest*, pp. 78-85, for a description of St. Riquier.

> 'From the East this (Church) has a large tower behind the Chancel and, with a vestibulum placed in between (*interposito vestibulo*), another tower towards the West is considered to be of equal size to the former'.[1]

M. Durand, in his authoritative monograph on St. Riquier,[2] in discussing this passage came to the conclusion that as obviously no porch could be placed between the two towers, the writer must have meant by vestibulum what we should call a nave. He points out that 'the ancient ecclesiastical writers, who were fond of comparing the christian church to the temple of Jerusalem, have certainly borrowed this word "vestibulum" from the Bible, and notably from the well-known text in the prophet Joel: "Inter vestibulum et altare plorabunt sacerdotes". They each used the word rather as they required it, and according to what they understood it to mean. Hariulf may have adapted it to the interior arrangement of the church as it was in his day.'[3]

We may then, perhaps, though it must be confessed with some hesitation, substitute the word 'nave' for 'porch' in our two Westminster writers, and adopting the suggestion made by Professor Lethaby, conclude that this church was left unfinished at the Confessor's death and, perhaps, was joined on in some way to the older Saxon church. But as no trace of foundations of the Saxon church was found, it is outside the scope of these notes to discuss exactly how 'the join' was effected. It is perhaps worth while to mention a further point which has occurred to me, and which might seem to support the 'unfinished' theory, although it can only be taken for what it is worth. The well-known representation of the Confessor's church in the Bayeux tapestry shows a cruciform building with a central tower (which we know existed), and five bays west of the tower. But it does not show, as we should have expected, the two towers at the west end which we know from the recent excavations, and from written evidence,[1] certainly existed when Henry III started to rebuild the church in 1245. It has been suggested that the Bayeux tapestry is English work, and it is generally agreed that it is practically contemporary with the events which it depicts.[2] If this is so, it may be said that the designer represents, with sufficient accuracy, exactly what the bearers would have seen on that winter's day when they brought the body of the Confessor to be laid before the High Altar of the great church which he had indeed 'brought to a most happy completion', so far as the essential services of the Monastery were concerned, although the less important ritual nave (which after all was only required for processional purposes), had yet, as we believe, to be built.

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[1] 'Haec ab oriente habet ingentem turrem post cancellum et, interposito vestibulo, alia turris versus occidentem habetur priori aequalis.'

[2] G. Durand, *La Picardie Historique et Monumentale*, iv, (1911), pp. 150, 151.

[3] M. Durand gives a further example from the Vulgate (Ezekiel, viii. 16) and quotes Leo of Ostia who speaks of certain legates being shown 'absidam et arcum atque vestibulum majoris ecclesiae'. On the other hand it may be noted that W. Effmann (Centula-St. Riquier (Munster, 1912). pp. 69, 70) rather than accept M. Durand's interpretation prefers to correct the text and to substitute the word 'imposito' for 'interposito' and renders the passage 'Die Kirche hat im Osten hinter den Chorschranken einen mächtigen Turm und im Westen hat sie einen diesem gleichen Turm in den eine Vorhalle eingebaut ist'.

(2) It remains to discuss the length of the completed nave. The Dean of Wells at first was inclined to make it eight bays in length, or 'four double bays with piers and pillars alternating', and thus it appears in his conjectural plan.[3] He was led to this conclusion by the following reasons: (1) that the Confessor completed his church; (2) that it made it easier to place its completion within the Confessor's lifetime; (3) that it left more room for the Saxon church which would otherwise have had but little space (300 to 350 ft.) between the Confessor's west front and the long ditch;[4] and (4) that it would thereby conform to the plan of Jumièges. But subsequently he was 'inclined to extend the Norman nave two bays further to the west', and thereby 'provide a more reasonable size for the old nave which had been left and joined on to Henry III's new work . . .'[5]

We now know that the total length was six double bays, or twelve bays in all, and this brings us almost to the present west end of the Abbey church.[6] Some eighty years ago Sir Gilbert Scott, who was the first to attempt to trace the architectural history of the church, devoted some pages of his *Gleanings*[7] to an examination of the written evidence—he had not then found the respond bases in the presbytery—concerning the Norman church. After pointing out that the existing cloisters occupied practically the same site as their Norman predecessors he added, 'the completion of the square (of the cloisters) thus marked out, carries us to within three bays of the western towers; and as cloisters rarely reached the end of the nave, it leaves it as a probable inference that the old nave did not fall short of the length of that now existing.' That opinion was confirmed thirty years later by Mr. J. T. Micklethwaite who, in a very valuable paper on the Abbey buildings,[1] went further and wrote: 'The old Saxon church was taken down and a nave built to correspond with the Confessor's quire. It was sufficiently old-fashioned when the French life[2] was written (*c.* 1245) to be mistaken for the Confessor's own work, but many fragments[3] which remain, though out of place, show that it was of the twelfth century, and that the chevron ornament was freely used in it. It was the same width as the present nave, a good deal of which is indeed built on the old foundation, and I think it was also the same length. . . . The building of the nave was a great work even for an Abbey such as Westminster, and it probably took many years to do. It seems to have been finished about 1150.'

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[1] 'En miliu dresce une tur, e deus en frunt del occident.' *Lives of Edward the Confessor* (*c.* 1245), edited by Dr. Luard in Rolls Series, quoted by J. T. Micklethwaite in *Arch. Journal*, March, 1894.

[2] Loomis in *American Art Bulletin*, vol. vi, no. 1; and *Guide to the Bayeux Tapestry*, F. F. L. Birrell (V. and A. Museum, 1921), p. 1.

[3] *Archaeologia*, lxii, pp. 94, 95.

[4] That part of the Tyburn which flowed down the modern Prince's Street across Victoria Street (at its junction with Tothill Street) and down Great Smith Street.

[5] *The Abbot's House* (1911), p. 8.

[6] The Dean noted, as a further reason for shortening the Confessor's nave, the existence of some corbels on the E. wall of Jerusalem Chamber. These seemed to point to the existence of some building for which there would have been no space if the Confessor's nave was of the same length as the present nave. The recent excavations, however, by disclosing the actual length, have shown that there would still have been room for such a building in the position indicated (see *Archaeologia*, lxii, p. 96, and *The Abbot's House*, pp. 7, 8).

[7] *Gleanings from Westminster Abbey* (1863), pp. 2 *et seq.*

Mr. Micklethwaite's date for completion is, possibly, open to question, but it is interesting to find that the opinions of both Sir Gilbert Scott and of Mr. Micklethwaite as to the ultimate length of the nave have now been confirmed, and we may perhaps accept, with some slight modification (e.g. it is a bay too short), the 'suggested section of the older church', with which Mr. Micklethwaite accompanied his paper, as a tolerably accurate representation of the general appearance of this noble Abbey church on its final completion.[4]

L. E. T.

II

The remains of the early south arcade of the nave of Westminster Abbey, uncovered by the excavations of the Dean and Chapter in 1930, have thrown an entirely new light on the planning of the Confessor's church, and have rendered necessary a reconsideration of the conclusions arrived at by Dr. Armitage Robinson in his paper read before this Society in February, 1910.

It will perhaps be as well, first, to give an account of the remains actually discovered and then to attempt to draw some conclusions as to the position of this church in the development of Norman Romanesque.

The discoveries were all made on the south side of the last five bays of the existing nave and consisted of the bases or remains of bases of the last five piers and west respond of the south arcade (pl. LXX, fig. 2) of the eleventh-century church. The foundations of the existing south arcade have destroyed nearly the whole of the south face of the earlier arcade, but sufficient was left to establish the complete plan of the piers, save the precise form of the responds facing the south aisle. Within these limits, the base of the free pier of the south-west tower, of the first of the minor and the first of the major piers (pl. LXX, fig. 1) of the arcade remained largely intact at the plinth-level. Sufficient was also found of the imprints of the next two piers to the east and of the west respond to establish with precision their exact form and position. The whole structure stood upon a massive sleeper-wall of considerable depth and of somewhat irregular outline, which projected to provide a footing for the northern responds of the major piers. This sleeper-wall incorporated a number of fragmentary bricks of Roman origin[1] (traces of a Roman building have been found on the site of the nave) and were, at one point, laid for a short distance to form an edge to the footing.

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[1] *Arch. Journal*, March, 1894.

[2] In Rolls Series (see above).

[3] These have recently been collected together and placed in the Abbey Museum.

[4] The interior of the nave must have closely resembled the N. transept of Ely which was completed about 1083-93.

On this sleeper-wall were built the piers of the arcade and south-west tower. The arcade-piers were of alternating simple and compound form, forming a series of double bays. The compound or major piers were originally of simple cruciform plan with broader square responds to the arcade itself and narrower responds of similar form towards the nave and presumably also towards the aisle as well. A chamfered plinth was carried completely round the base. The minor or simple piers had a simple chamfered plinth 5 ft. square, with no evidence, in itself, to show if the actual pier above were of square or cylindrical form. The free pier of the south-west tower was of slightly more complex form and had a broad pilaster-buttress (over 7 ft. wide) on its north face. Of the west respond only the imprint of the plinth-stones on the mortar of the sleeper-wall survived, but this was sufficient to fix its position as shown upon the plan.

Within a period not greatly removed from that of the original building, two alterations or reinforcements were made of the original piers, probably due to some instability in the building or from a desire to buttress the south-west tower. The first of these was the addition of an extra order under the original arches and also the insertion of additional shaft bases on the north faces of the major piers. The additional order rested on a series of pilasters with chamfered plinths built up against the earlier plinths of both major and minor piers, and the additional shaft bases were definitely cut into the earlier work.

The second alteration consisted of the building of screen or blocking-walls between the added pilasters. These walls had a chamfered plinth and were built up against the earlier chamfered plinths of the added pilasters.

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[1] Roman bricks were also incorporated in the footings of the main apse uncovered by the late Professor Lethaby.

We have thus three definite periods of work in this south arcade (*a*) the original piers, (*b*) the added pilasters and shafts, and (*c*) the added screen or blocking-walls. The character of the work, however, in the three periods is hardly, if at all, distinguishable, and it seems probable that all three were undertaken and completed before the end of the eleventh century.

The addition of the pilasters to the minor piers would seem to imply that the piers themselves were square and not round, for though it would not be impossible to apply square pilasters to a cylindrical pier of the same thickness, it would imply considerable cutting away of the pier face at the point where the pilaster face formed a tangent with the pier, to form any sort of a bond.

The ashlar used in the plinths of the piers, pilasters, and blocking-walls is entirely Reigate stone, which is the material used also in the surviving respond bases of the choir, discovered by Sir Gilbert Scott. Its surface is treated with coarse diagonal tooling, and the mason work is of the somewhat rough and ready order which implies an early date and an inexperienced hand.

The level of the plinths of the various piers reveals a highly remarkable circumstance. Though the stones are set horizontally in each pier, from west to east they rise increasingly above a common datum and in the free pier of the south-west tower they actually alter in level on the pier itself. This continual rise in the level accounts for the fact that in the two eastern piers examined, the level had risen so near to that of the existing pavement that all the stones of the plinths themselves had perforce been removed leaving only the imprint on the sleeper-wall below. It follows from this circumstance that the original pavement of the nave of the Confessor's church sloped upwards from west to east with an incline of about 1 in. in 4 ft.

In the immediate neighbourhood of the first major pier from the west, the mortar bed of this first pavement was uncovered. As was usual its level equated with the base of the plinth-course, but no remains of the actual pavement itself were found. Remains of a second and later pavement of square red tiles (10 in. square), also co-existent with the early nave, were likewise found in the immediate neighbourhood of the same pier. This pavement was bedded on a layer of bright yellow sand[1] which was continuous even when the tiles had been removed, except where cut into by later graves. The tiles at one point were bedded up against the plinth of the blocking-wall and almost level with the top of it, proving that the wall was still existing when the tiles were laid.

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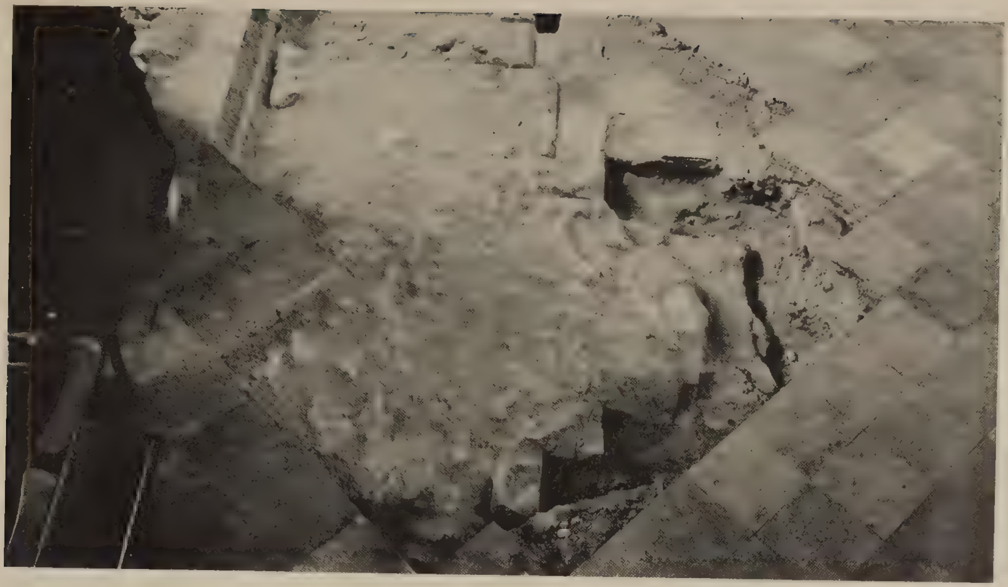
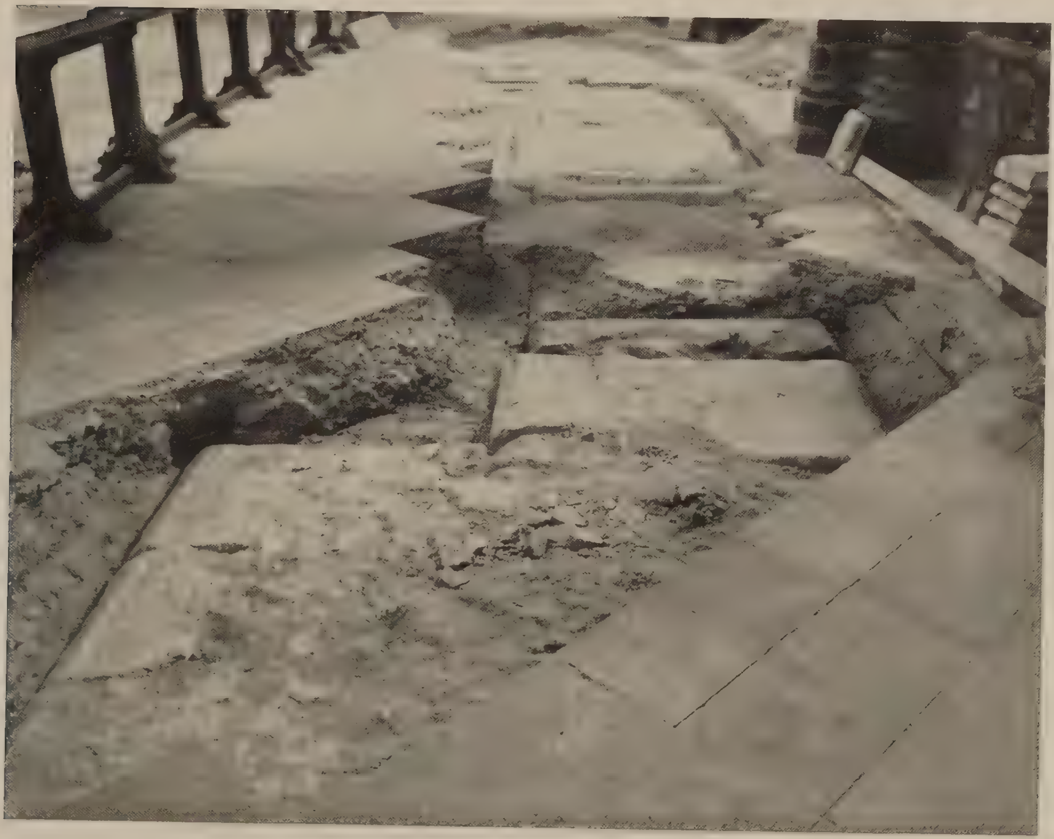
[1] The continuity of this band of sand round the end of the north respond of the first major pier was sufficient to prove the approximate projection in that direction of the respond, which was not otherwise very determinate.



1. S. Arcade, Base of first compound pier from W.



2. Bases of S. arcade looking E. from pier of S.W. tower

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A portion of a third pavement of small square tiles (4½ in. square) was found immediately overlying the base of the blocking-wall in the first bay east of the south-west tower. This may have formed the floor of a doorway cut through the wall or may have been laid down after the wall was destroyed. At a still higher level was the original floor of the existing nave set out at the close of the fourteenth century.

The axis of the early arcade and nave had a pronounced tilt to the south-east from that of the existing building, and this would appear to be continued as far as the early east end, though the portions here preserved are insufficient to form of themselves a safe indication of axis.

Reconstruction of the Plan

For the reconstruction of the plan of the Confessor's church (pl. LXXI), attention must be paid to two points—the surviving remains of the early choir, and the north and south lines of the early east range of the monastic buildings. The former are certainly parts of the Confessor's building, and the latter, though perhaps of slightly later date, were built in direct connexion with his church and must indicate the lines of his transept. On those lines the Dean of Wells has produced a reconstruction of the east end which we may adopt with but little modification. As to the nave the matter is complicated by the slightly irregular dimensions of the western bays uncovered by the excavations. The west bay is definitely and distinctly abridged owing to its proximity to the very heavy pier of the south-west tower, but the other bays are not exact in their setting out. If, however, we take the span (17 ft.) of the last excavated bay towards the east as the normal spacing, we shall have a nave of six double bays or twelve bays in all, with a rather deep respond at the east end. It is, of course, possible that the slightly earlier eastern bays were of rather greater span, which would do away with the deep east respond, but I have preferred to abide by the dimension for which definite evidence can be adduced.

The projection of the transepts and the width of the aisles are of course conjectural, and though an excavation in one or other of the aisles of the nave might recover the latter dimension, it is doubtful if the extensive burying in the existing transepts has suffered any trace to survive of their predecessors. In any case excavation here is out of the question.

We have thus a church with an internal length of 322 ft. consisting of an apsidal choir of two bays, transepts, and nave of twelve bays with two western towers in addition. Let us now examine how far these features, with their architectural details, reflect the contemporary or earlier work of Normandy from which they are undoubtedly derived.

The general plan is that almost universally adopted in the eleventh-century abbey churches of Normandy, so far as we know them. Curiously enough the only known exception is the abbey of Jumièges where the east end has recently been proved to possess an ambulatory carried round the main apse; Jumièges otherwise provides the closest analogy to the alternate arrangement of the piers of the nave and the system of double bays and has been put forward as the direct prototype of Westminster. The double bays are otherwise exemplified at the abbey church of Lyre destroyed at the Revolution. Here the original church of *c.* 1050 was largely rebuilt about 1150, but the plan evidently preserved that of the earlier building. The major piers of these two Norman churches, like those of Mont St. Michel nave and the early nave at Bayeux, are or were of the cruciform typebased on a square pier with a shaft or pilaster or both projecting from each face. The major piers at Westminster, on the other hand, were evidently designed to support main arches of a single order and of the full width of the pier, whereas the base towards the nave was of much smaller dimensions and was designed to carry only a small pilaster or shaft. The respond bases in the choir still retain the actual shaft-base above the plinth, which has the very shallow double hollow-chamfer which is employed in many of the eleventh-century churches in Normandy, such as Jumièges, Mont St. Michel, St. Ouen Rouen, and Caen St. Étienne, La Trinité, and St. Nicolas.

In general dimensions the Confessor's church far exceeded any of the eleventh-century churches of Normandy which have survived. The church which approached it most nearly is the cathedral of Rouen, if we suppose, as is reasonable, that the eleventh-century building extended as far as the west face of the existing twelfth-century north-west tower. This would give it a nave of eleven bays as against the thirteen (with the west towers) at Westminster. Counting the towers, Jumièges has only nine bays, Montivilliers the same number, the Trinité at Caen ten (with the towers), St. Étienne nine, Mont St. Michel eight, and Bayeux cathedral only seven. In actual length the longest church of the age in Normandy was probably the Cathedral of Rouen, extending to about 305 ft. This, however, includes the recently discovered ambulatory and eastern chapels, and the actual length of the high roofs was not more than about 270 ft. Jumièges, including the ambulatory, was about 262 ft. long, and the Abbaye aux Dames at Caen 259 ft. The other churches, so far as we know, were all of them shorter.

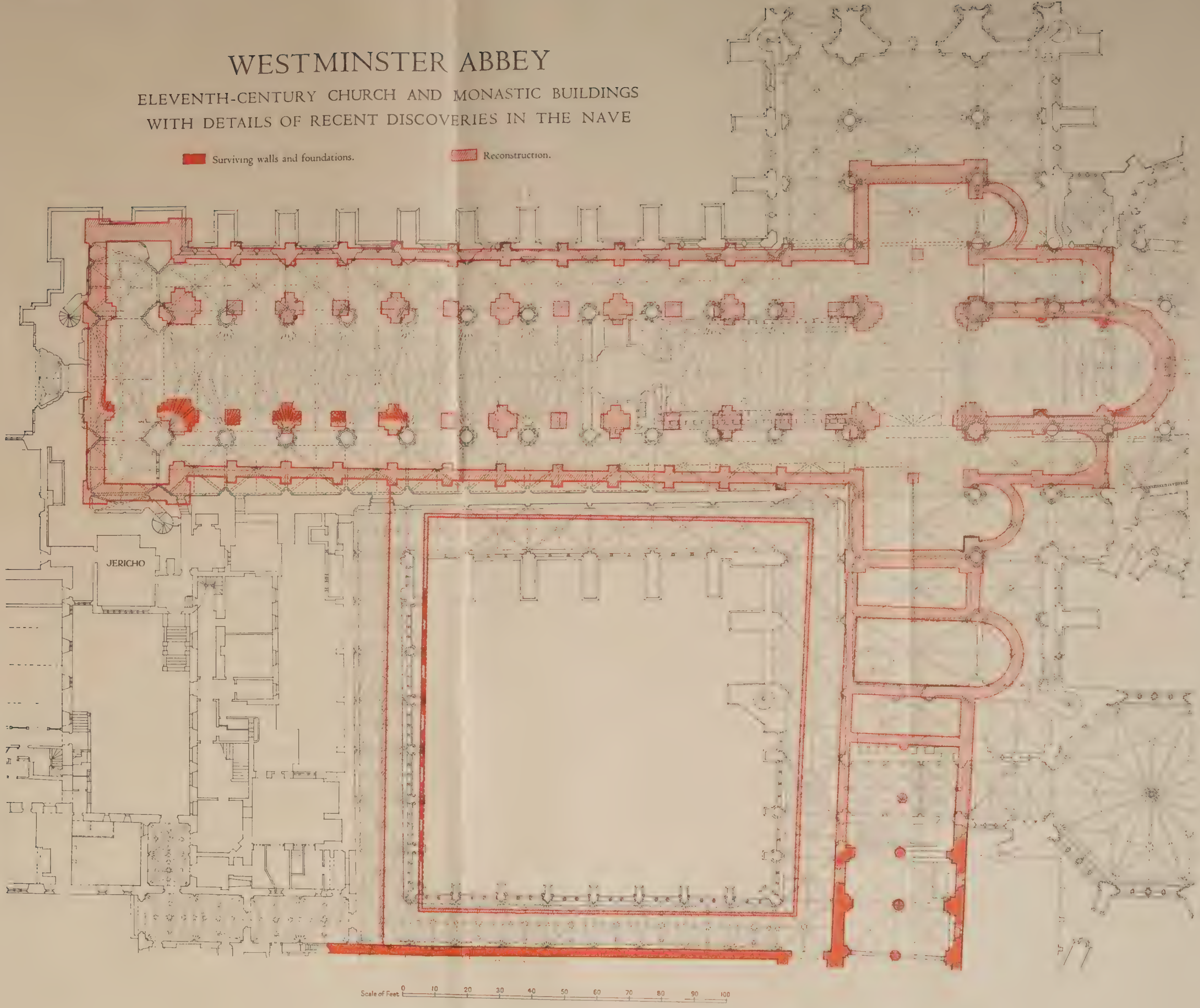
This unusual length in a church of the early Norman school is not in itself unreasonable when we consider that it was built as the church of a royal abbey by the king of no mean state, whereas the contemporary Norman churches were at best the building of the duke of a powerful but still petty duchy.

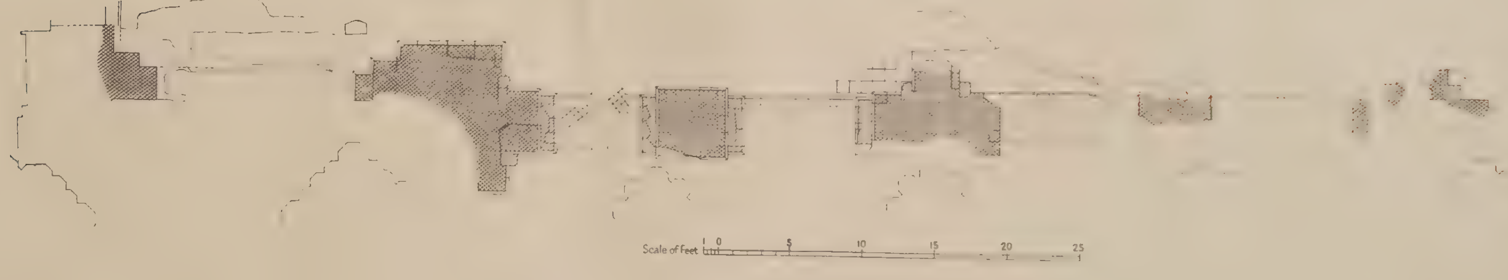
A. W. C.

WESTMINSTER ABBEY

ELEVENTH-CENTURY CHURCH AND MONASTIC BUILDINGS WITH DETAILS OF RECENT DISCOVERIES IN THE NAVE

🟥 Surviving walls and foundations. ▨ Reconstruction.





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XII.—*An Excavation by H.M. Office of Works at Chysauster, Cornwall, 1931.*

By H. O'Neill Hencken, *Esq., M.A., Ph.D., F.S.A.*

Read 4th May 1933

In 1930 Col. C. R. R. Malone, J.P., of Trevaylor, generously placed in the custody of H.M. Office of Works the remains of an extensive Celtic village of the Romano-British period and possibly earlier. The site, commonly called Chysauster, lies upon a gentle south-western slope between the farms of Chysauster and Carnaquidden in the parish of Gulval about three miles north of Penzance and ten and a half miles from Land's End. It is in the granite area that forms the greater part of the Hundred of Penwith. The site is not fortified, but on the summit of the hill above it about 1,400 yards away is a hill-top fort called Castle-an-Dinas. This consists of three stone ramparts, and resembles very closely the neighbouring Chûn Castle recently excavated by Mr. E. T. Leeds, F.S.A.[1] Below the site is the valley of the Rosemorran stream which once yielded alluvial tin ore. The name Chysauster, though Cornish, is unfortunately of little value from the archaeological point of view, for its earliest form, which appears in a document of 1313, is *Chysalvestre*, Sylvester's house.[2]

A plan of the remains of the village is given here as pl. LXXII, and shows the eight houses of which traces remain. It may be remarked in passing that these buildings, generally called huts, are really houses. Surely it is a misnomer to call a stone structure 90 ft. in length and containing several rooms like House 6 a hut. That term should be reserved for the little foundations of one-room hovels 15 or 20 ft. across that are so frequent on the unploughed moorland stretches of Cornwall and Devon. Still less appropriate is the entirely meaningless name of 'hut clusters'. The boundary of the area in the custody of H.M. Office of Works is indicated in pl. LXXII by the numbers I to XI, and includes within it Houses 3 to 7. Nos. 1, 2, and 8, which were not recognized as house foundations when the boundary was made, were not included.

It is noteworthy that the houses on the whole show a marked family likeness. The entrances which face in a general easterly direction lead to a large open space, probably too large to have been roofed, which will hence be called the court. Having entered, the visitor finds that the portion of the court on his left is somewhat larger than that on his right, and the remaining walls suggest that even if the court were never roofed, at least this left-hand portion might have had a lean-to roof to make it into a shed. On the side of the court opposite the entrance is a large round or oval room, often with patches of rough paving. Set into this paving is generally a large flat stone with a small cavity or basin in it, the purpose of which is very difficult to determine. In the writer's experience the bulk of the finds from a house are to be expected near the entrance to this room. To the right of the visitor entering a house is usually a long narrow chamber which yields little or nothing in the way of finds. Beside these general characteristics, other rooms often occur. Another interesting feature is that some of the houses have been found to be equipped with drains, and indeed, in the case of House 7 it is evident that this device served not to carry water away from the house but to bring it in. Altogether House no. 5, barring its eastern extension, might be selected as representing the basic Chysauster plan with all essential features. Nos. 4 and 6 show the maximum of elaboration to the fundamental plan, while no. 3 is a curious example of two units built into one to form a double house. No. 7 is badly ruined, but in spite of minor divergences seems to have resembled the others. The same may be said for nos. 1, 2, and 8, as yet unexcavated.

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[1] *Archaeologia*, lxxvi, p. 205 f.

[2] For this information the writer is indebted to the late Mr. Charles Henderson.

Associated with nos. 1, 3, 5, and 7, which form the lower row of houses, are terraced areas, probably gardens, which extend down the hill from the dwellings. Farther up the hill and above the upper row of houses the slope is broken by long low banks which seem to be lynchets, though the heavy growth of gorse and bracken at the time of the excavation made precise observation difficult. One of these possible lynchets is shown north of House 6 at XII–XIII in pl. LXXII, but the others are too far north to be included. The remaining banks associated with the houses in the upper row nos. 2, 4, 6, and 8, are low irregular boundaries evidently connected with the village. Most of them are slightly lyncheted, though this is not clearly shown on the site plan. It was not possible to examine any of them during the last season's work, but when, previous to the excavation, the foreman was digging pits for the posts of the northern boundary, he found that they were composed of loose stones. Both down the hill to the south as well as to the sides in an east and west direction the slope has been fenced in and cultivated, so that although these fields are deeply lyncheted, the process is modern in at least a great measure.

IV on the site plan (pl. LXXII) is the end of the path constructed by H.M. Office of Works from the modern road to the village, and the part of this path nearest the houses follows the course of a sunken way leading down into the valley which may very possibly have been made when the village itself was inhabited. Near the point where this path reaches the ruins are two mounds, XIV and XV, as yet unexplored. Three other larger mounds at III, V, and VIII are the tips where the debris removed during the season of 1931 was dumped. It is to be regretted that they had to be placed so near the site, but this was unavoidable. The dotted lines largely within the areas they cover on the plan represent trenches that were dug before the tips were made in order to ascertain whether or not remains of any kind existed there. All these tests proved negative.

About 200 yards south of the village are the scant remains of a *fogou*, a kind of subterranean dwelling common in this part of Cornwall and resembling the Irish souterrains and the Scottish earth-houses. In Cornwall they are approximately contemporary with such sites as Chysauster, and this *fogou* must be considered as part of the village. In a previous publication on the site,[1] the writer expressed the view that there had once been two *fogous* at Chysauster, but fuller consideration of the evidence has caused him to abandon that view.

Chysauster was unknown to Dr. Borlase, the great Cornish antiquary of the eighteenth century, but was first discovered according to J. T. Blight by an antiquary called Crozier in 1849,[2] and was subsequently noticed by Richard Edmonds in 1861.[3] No excavation was attempted, however, until a few years later when William Copeland Borlase cleared out House no. 6.[4] In it he found parts of a debased type of pedestal urn which may be as early as the first century A.D., but of a form which lasted for a long time into the Roman period.[5] In the courtyard he also found a piece of metallic tin. In 1897 Mr. J. B. Cornish and Mr. F. Holman of the Penzance Natural History and Antiquarian Society undertook the excavation of House no. 4,[6] where they found a quantity of sherds resembling Romano-British pottery.[7] No other excavation was undertaken until 1928 when Mr. T. D. Kendrick of the Department of British and Mediæval Antiquities at the British Museum and the writer resolved to excavate no. 3.[8] Here were found 120 small Iron Age sherds, showing no trace of Roman influence. Those that are more precisely datable belong to the formalized La Tène wares which were in use in Britain between about 50 B.C. and A.D. 50. A single tiny sherd of much harder fabric found in close association with some of those unquestionably of the Iron Age, proved to be coated with a bright red tin glaze. The various excavations have also produced some extremely rusty and shapeless fragments of iron and a few bits of flint, but apparently no bronze or animal bones. So far no trace of a midden has appeared, and no cemetery is as yet known.

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[1] *Journal of British Archaeological Association*, 1928, pp. 149–50.

[2] *Archaeological Journal*, vol. xviii, p. 39 f.

[3] *43rd Report of the Royal Institution of Cornwall* (1861), p. 49.

[4] *Archaeological Journal*, vol. xxx, p. 366 f.

[5] H. O'Neill Hencken, *Archaeology of Cornwall*, p. 135, fig. 39 C.

[6] *Transactions of the Penzance Society*, N.S., vol. iv (1893–8), pp. 106–7; *V. C. H., Cornwall*, vol. i, p. 370.

[7] H. O'Neill Hencken, *Archaeology of Cornwall*, p. 135, fig. 39 D.

[8] *Journal of the British Archaeological Association*, 1928, pp. 145 ff.

In 1931 H.M. Office of Works, having been entrusted with the care of the site, determined to explore it further, and through the courtesy of Sir Charles Peers, Chief Inspector of Ancient Monuments and Historic Buildings, the writer was enabled to be present at these most recent excavations.[1] Work was begun on July 15th and was continued until September 12th.

It was decided to begin with no. 5, and after the bracken had been cut down over a considerable area around it, it was determined to place the tip at V on the site plan (pl. LXXII) against the southern boundary. In order to make certain that no remains existed in this quarter, a series of trenches each a yard wide was made over the area. These are shown in pl. LXXII at V with dotted lines. Nothing was encountered here but two long and low ridges of loose stones just below the turf, but it became obvious after a little digging that they were recent additions to the site. The foreman was probably right in the view that they were tips of unused stone left by some farmer who had been making a stone wall in the vicinity. Since it was feared that the mound XV at the end of the trenches at V was merely another recent stone pile, it was not examined.

House 5, the plan of which is shown in fig. 1, was the first to be cleared, and was found to measure 61½ ft. long by 50 ft. wide over all, not including its eastward extension. The outside wall could be traced clearly all the way around the house and in most places retained one or two courses of the original dry stone facing. In the best preserved places it was 3 ft. high and retained three courses of original facing. Much of this now leans outward so that the upper part overhangs the base, and in places where the wall seemed endangered, some large stones were rolled against it to support it. This condition has been caused by the roots of gorse bushes which grew until lately upon the walls. When the writer noticed this feature inside House no. 3 in

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[1] Beside the writer the following were also present: Miss Gertrude Balliet, Rev. Arthur Boscawen, Mr. Donald Brown, Dr. R. Vernon Favell, F.S.A., Miss Harriet Hammond, Mrs. H. O'Neill Hencken, Lt.-Col. F. C. Hirst, Mrs. Arthur Holbrook, Mr. S. A. Opie, and Miss A. Welsford. During the greater part of the time a foreman and eleven workmen were employed. Most of the photography was done by Mr. Herbert Gibson of Penzance who paid frequent visits to the site, and the plans have been prepared by Mr. T. S. Copplestone and Mr. G. Singleman of the Dept. of Ancient Monuments and Historic Buildings of H.M. Office of Works. All these and especially Lt.-Col. Hirst rendered much invaluable service.

1928 he supposed that it indicated corbelling, but this is apparently a wrong explanation. In fact the only highly probable example of this device at Chysauster is in the small cell C in House 6.

At the northern side of the house, however, the wall is considerably higher than elsewhere, owing to the fact that a modern stone wall, or hedge, as it is called in Cornwall, was at this point built upon it. This hedge, most of which was removed in 1931,[1] ran from no. 1 along the northern sides of 3 and 5 and joined the still existing boundary wall at X on the site plan. The greater part of the masonry of this hedge, like that of the other similar ones in the vicinity, was quite different and easily distinguishable from that of the ancient houses. These hedges differ from the old walls in being made on the whole of smaller stones, much less regularly laid and by often having stones in them set vertically. At both points where the hedge abutted on the exterior of House 5, the contrast in masonry was apparent especially near the ground; and when the hedge was removed, it was seen that the stone work of the hedge was not bonded with that of the house and that the house wall continued its normal expected course where the hedge concealed it. Where the hedge was actually built upon the wall, however, it was much more difficult to distinguish the old from the new, and no attempt was made here to remove the modern addition.

The entrace to the house, which slopes steeply downward, measures 15 ft. long by 7 ft. wide, and its sides are lined with stones, on the whole rather larger than those used in the construction of the rest of the house. When this entrance was being cleared, some fallen stones of similar proportions, the largest weighing about 4 cwt., were removed from it. These facts compare with the writer's previous experience in House 3 where the entrances are made of stones, on the whole larger than those employed in the other parts of the structure. One of these large stones on the west side of the entrance was leaning out of place, and in as much as its original position in the wall was in no doubt and since it was important for the stability of the wall, it was forced back into position. The best preserved part of the entrance walling is 3 ft. 3 in. high.

The entrance leads to the court, *A*, which also slopes to the south, though less sharply. Its extreme interior measurements are 34 ft. by 33½ ft., and the best preserved part of the wall measures on the inside 4 ft. high. A tall stone leaning dangerously from its place a little to the east of the entrance was readjusted in the same manner as the one in the entrance. These and a few other instances of replacing stones under the same conditions revealed the fact that though the walls are faced with dry masonry inside and out, they are not solidly constructed of stone, but of a mere earth and rubble filling held in place by the two faces.

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[1] Much of the stone from it was added to the inside of the boundary hedge near no. 5. For original position of the hedge, see *Journal of the British Archaeological Association*, 1928, pp. 149 and 151.

As the court was cleared, two very large stones, *X* and *Y* on the plan of no. 5, came to light, one on either side of the entrance. They weigh about 6 cwt. each. Obviously they once stood erect and formed the inner corner stones of the entrance. Probably they had been thrown down by men looking for hedging stone. Rather than break them up and carry them away, it was decided merely to shift them so that they could be dug under, and then to replace them in the positions in which they were found. Inasmuch as it could not be determined just how they had stood in the wall, no attempt was made to set them up again.

Through the entrance and across the court there runs a drain consisting of a gutter in the 'rab' or hard clayey subsoil of decayed granite. This gutter averages 14 in. wide and 5 in. deep, and throughout a large part of its course it is covered with flat unworked slabs of granite. Originally it was probably covered completely with these, and inasmuch as such a drain must have been in constant need of cleaning to prevent it from silting up, one may imagine the occupants of the house constantly removing these cover stones and scraping it out. This implies that the cover stones of the drain indicate the floor level of the house, and this is corroborated by the fact that the other small sections of paving that remain are in the same stratigraphical position, that is lying directly or almost directly upon the rab. When House 5 had been completely excavated enough soil was replaced on the floor to fill it in up to the level of the tops of the paving stones. The drain does not extend south of the house, but empties through a hole in the wall of the court which on the outside is just above the surface. Here there are some flat paving stones probably placed to give solidity to a spot where the ground would always have been muddy. The upper end of the drain extends a little way outside the entrance of the house, however, and here in January 1931, the foreman who was then making the fence around the site noticed water 'weeping up' and rushes growing. It is obvious that since the entrance of the house slopes sharply downward, a drain here was essential to keep the dwelling from being flooded, especially since the climate was rainier[1] then than now. In House 7, however, a similar drain led to a large basin in the rab inside the house. This suggests that the drain in no. 7 was more to bring water into the house than to take it away, and though no. 5 possesses no basin, the passing stream may have been utilized for household purposes.

On the right hand side of the court as the visitor enters is the 'long room' of the house, *C* on the plan, which measures 3½ to 5 ft. broad and 27 ft. long.

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[1] C. E. P. Brooks, *Climate through the Ages* (London, 1926), esp. p. 343; *Antiquity*, vol. i, p. 412.

Though in three places the masonry walling has collapsed in a peculiarly awkward way that makes the entire clearing of the room impossible without rendering the remaining walls insecure, the walling at the northern end of this room is still 5 ft. 6 in. high, which must be nearly its original height. On the floor is a long line of paving stones which suggested a drain when found, but, when they were raised, it was seen that they lay on the rab and that there was nothing under them. In this and all other cases where paving was raised, it was replaced at the level at which it was found and in precisely its original order.

The doorway leading into the long room from the court consisted of two large unhewn slabs of granite 2 ft. 10 in. high. The northern one had been thrown down across the doorway, however, and a large slab that was almost certainly the lintel has been pushed over on the top of the wall just south of the door. If this really was the lintel, the door would have been no more than 2 ft. 10 in. high. In this respect it would have resembled closely similar doorways in other contemporary Cornish buildings, such as the beehive hut at Bosporthennis in Zennor parish, and the *fogous* at Trelowarren, Pendeen, Boleigh, and Carn Euny.[1] As is usually the case with the long rooms at Chysauster, this one provided almost nothing in the way of finds.

The round room, *B* on the plan, lies as in the other houses opposite the entrance. Its doorway is flanked by two solid upright pieces of granite 5 ft. apart and like the others unworked. They measure 4 ft. and 3 ft. 4 in. high respectively. If they were ever covered by a lintel their heights were probably equalized by a horizontal slab built out from the wall across the top of each. This is also a feature constantly recurring in the early Cornish buildings just referred to. The round room itself has a maximum diameter of 21 ft., and the highest remaining portion of the wall is 4 ft. 1 in. high. Opposite the entrance, however, the wall except for its foundation had been completely destroyed, but in order to show clearly what the plan of the house was, this gap was filled up with turf to the level of the adjacent walling. In the part of room *B* nearest the long room there is a shallow niche in the wall. Just inside the door is the feature always to be expected in this position, a large slab of granite with a small basin hollowed out in it. The cavity, a rather small one by comparison with the others at the site, is round and measures 6 in. in diameter at the top, 2 in. in depth, and 3 in. in diameter at the bottom. The bottom in this case is flat, an unusual feature, and the hole, unlike the others of its kind, looks as though it had been made with a metal tool. Most of the others look merely pounded or ground out. The purpose of these cavities is very difficult to determine but will be discussed later (pp. 275–7).

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[1] H. O'Neill Hencken, *op. cit.*, pp. 138, 141–50.

When work was begun on no. 5 its arrangement was by no means clear, as may be seen by contrasting the plan of the house after excavation with that made in 1928.[1] As has been the case with the other houses which the writer has seen excavated, the thick walls, probably once 6 or 7 ft. high, had collapsed so badly that only in a few places was the remaining part of the dry masonry facing unobscured by fallen debris, but by working carefully along the walls in each direction from the few known points, the interior plan of the dwelling was finally exposed. The outside wall was not cleared till afterwards, which subsequently proved to be an unwise procedure. All the material removed from House no. 5, a far greater quantity than had been anticipated, was carried to the tip at V on the site plan.

When the plan of the house had been determined, the entire interior of the structure was cleared down to the rab or subsoil of decayed granite. This is an unmistakable clayey stratum, yellow to grey in colour, which clearly shows marks of disturbance, and when it is found in its purely natural state, the excavator may be sure that he has reached the limit of previous occupation. In order to clear to this level, the whole interior of the house was divided into measured sections, each of which, but especially the first one, was dug with great care, the position of every object found being indicated on a plan of the house.[2] It was found that in the court and in the adjacent part of the round room there were three distinct strata overlying the rab. The upper one of turf and bracken roots was from 6 in. to 8 in. thick; the next one of stones, for the most part small and loose, was from 10 in. to 1 ft. thick, and the third one was of fine greyish soil, rarely over 1 ft. thick. Very seldom, however, were the three layers together more than 2 ft. deep. The layer of soil was only found in the lower-lying southern half of the court and was deepest in the lowest corner where the drain passes through the wall. This layer of soil contained almost all the finds from the house, these being most numerous in the lowest corner and in the vicinity of the door connecting the court with the round room. In the upper part of the court where the stratum of soil was not found, the layer of stones directly overlay the rab, and finds were very few. It would seem that after the house had been abandoned the soil above the rab had been carried by water action down hill as far as possible and that most of the small artifacts found in the house had drifted with it at the same time. At least they were scattered fairly evenly through the layer of soil. It should be remembered, however, that in this part of a house finds are usually abundant. It would also seem that the layer of stones overlying the soil had come there subsequently when the walls of the house were being pulled down for hedging stone, and the smaller stones useless for this purpose were being discarded and left scattered about. A few trifling finds above the stony layer are probably attributable to the disturbances consequent upon the partial destruction of the house.

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[1] *Journal of the British Archaeological Association*, 1928, p. 147.

[2] This plan will be sent to H.M. Office of Works to be kept with the material found at the site.

In the round room the occupation level could be precisely determined by the fact that the stone with the cavity in it, obviously forming part of the paving, was 13 in. below the level of the turf. Also in this room nearly three-quarters of the finds came from between 13 in. and 19 in. below the turf level. In the round room the strata were much the same as in the adjacent part of the court. Behind the patch of paving, however, there was below the soil instead of rab a quantity of very large stones projecting upward at odd angles and firmly wedged together, but rooted in the rab. Since these stones were as they had been placed by nature—for large stones 'fast in the rab' in this manner are a common occurrence in West Cornwall—they were not removed but were carefully cleaned. Little, however, was found between them. It was also observed in clearing this house that its foundation rested either on the rab itself or upon groups of these stones rooted in it. In the round room just south of the entrance was a patch of charcoal 17 in. long, 7 in. wide, and 2 in. thick. It was 8 in. below the level of the pavement. In it was found a piece of slag, probably iron slag. Apart from this there was no sign of a hearth in the house proper, and though some tiny isolated fragments of charcoal appeared here and there in the soil stratum, there was nothing else that indicated a place where a fire had burned. Even the patch of charcoal in the round room was very small. The finds from House 5 are discussed in detail on pp. 266 ff.

On the south side of House 5 is a roughly semicircular terrace measuring 87 ft. by 89 ft. Like the terrace of House 3 examined in 1928, it extends down the hill from the lower side of the house and is surrounded and kept in place by a sloping bank of stones. This is highest on the lowest (southern) side where it is 3 ft. high. At the end where it touches House 5 there are some large stones set upright upon their edges along the top of it as though to form a kind of fence, but there is no evidence that this arrangement was carried out all the way around the terrace.

Through this terrace was cut a trench, *E–N* on the plan (fig. 2), to examine the soil of which the terrace is composed. In the first place the fact that it really was an artificially made terrace was clearly established by the discovery that the filling above the undisturbed rab became deeper the nearer the trench was cut to the boundary wall of the terrace. At *E* the filling was no more than 6 in. deep; at *F* it was 22 in., and at *K*, 36 in. Upon the other side of the terrace wall where no soil had been filled in, the rab was found at the following depths: at *L*, 3 in.; at *M*, 14 in.; and at *N*, 4 in. These depths of soil may be compared to those of the trenches made below the tip at *V* on the site plan. These varied from 6 to 26 in., but the long trench parallel to the boundary showed the deepest soil, while in the shorter extensions from it the soil became shallower and shallower the nearer they were dug to the terrace. This seems conclusive proof that this terrace was artificially constructed in connexion with House 5 and differs in that respect from a lynchet, which, though the result of agricultural operations, is generally not made intentionally.

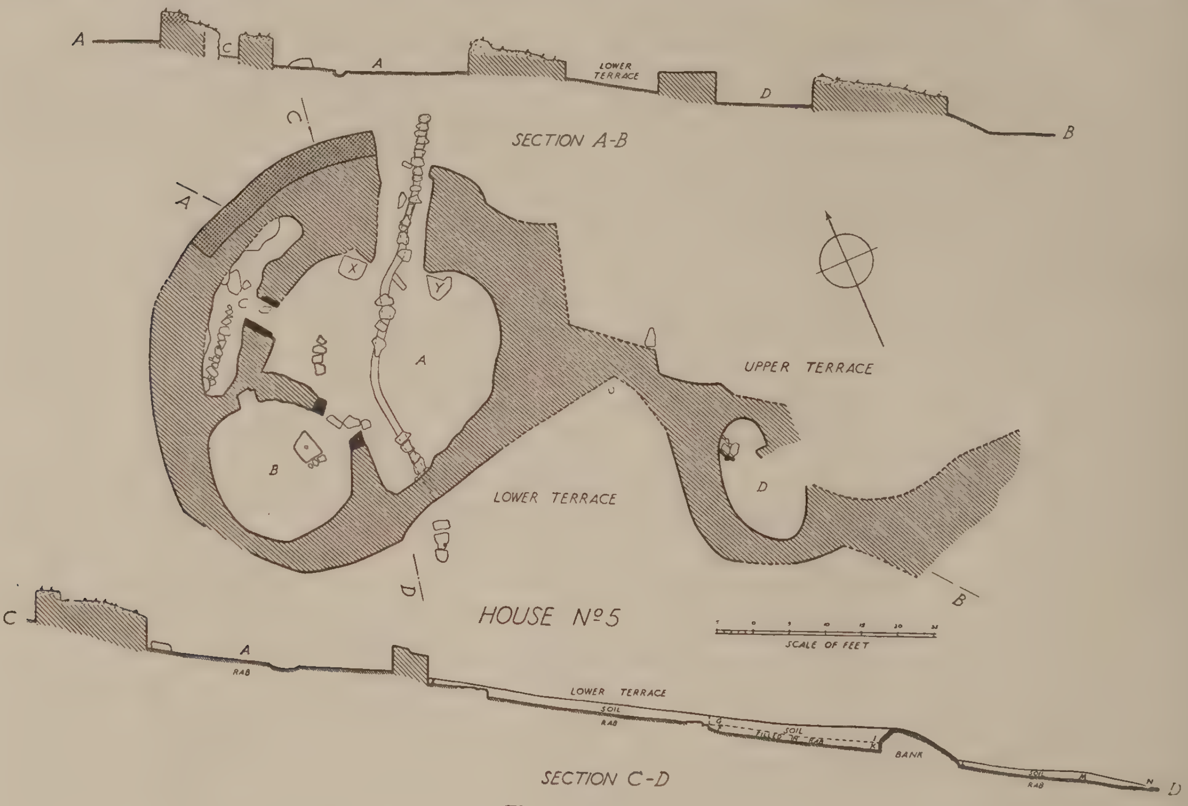

Fig. 1. House 5.

It was also found that in the lower (southern) part of the terrace the filling was in two strata, an upper one of soil and a lower one of rab 1 ft. thick that had been brought from somewhere else and laid down above the natural undisturbed rab. In order to examine this more thoroughly, an extension, *GHIJ* on the plan (fig. 2), was made. While it is difficult to imagine what such terraces could have been for, if not for agriculture, their size makes them comparable to gardens rather than fields, and large stones almost on the surface found in section *GHIJ* combine with the small area and irregular shape of most of the enclosures to show that they could hardly have been ploughed. Obviously, whatever kind of agriculture was carried on here was on a very small scale. The trench through the terrace also revealed some stones at the rab level, but it was very difficult to determine whether or not they were natural.

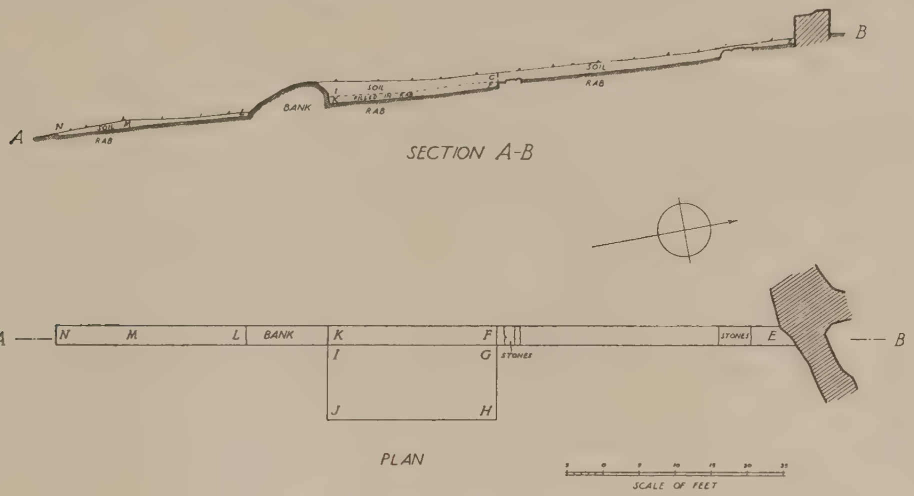

Fig. 2. Trenches south of House 5.

The trench through the terrace yielded the following objects: 5 small sherds like those from House 5 (38, 39, 42–44.[1] See p. 267). 9 small water-worn pebbles, mostly quartz (*Q*, *R*, *W*, *AD*, *AF*, *AG*, *AH*, *AM*, *AO*).[1] 2 slate fragments (*AC*, *AD*). Two of the pebbles (*Q* and *R*) were found in the filled-in rab 24 in. and 28 in. below the surface, and, since they do not belong geologically to the site of Chysauster and must have been brought there by the inhabitants, their presence in the upper stratum of rab confirms the view that it is artificial filling. The other finds were in the soil above the rab at depths varying from 11 to 22 in. In the south-east part of the terrace is a group of stones (*O* on the plans, pl. LXXII and fig. 3) for which it is difficult to suggest an explanation. They were certainly placed there by some human agency, for most of them stood above the rab in the filled-in soil and a few were roughly in line. Though they were carefully dug around and cleaned, nothing more than three more quartz pebbles came to light. It seems possible that they were either a dump of unused building stone left by the builders of Chysauster, or a heap of unused hedging stone removed in recent times from the ruins; or they may have been gathered there by the occupants of House 5 in order to clear the upper part of their garden.

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[1] These letters and numbers are those by which objects were recorded as found. They were subsequently written upon the objects themselves.

Branching away from the south-east side of House 5 is a thick stone wall rather more roughly built than the wall of the house, and in the best preserved part consisting of two to three courses of masonry facing, 3 ft. high. This proved to be the retaining wall of an upper terrace, but is far better built than the mere bank that surrounded the lower one. Built in it is the small hut *D* (figs. 1 and 3), the only structure so far found at Chysauster that can actually be called a hut and not a house. This is a kidney-shaped chamber 18 ft. long and 10 ft. wide, at the northern end of which is a hearth. At the best preserved point, the wall is 4 ft. 2 in. high above the original floor, the level of which is clearly shown by abundant signs of fire. The doorway, which opened on the upper terrace, is now ill defined owing probably to the fall of a very large stone, perhaps a door jamb, which was found lying across the entrance.[1] Just west of the little patch of paving was a hearth which measured 2 ft. by 3 ft. and was marked by a layer 5 in. thick of charcoal and rab burned red. Much of the rest of the rab floor was burned red or yellow, and was strewn with charcoal. No such signs of a spot where fires were habitually lighted occurred in House 5 itself, and one wonders whether this little subsidiary structure might not have been the kitchen. The rab floor, which contained many irregularly placed

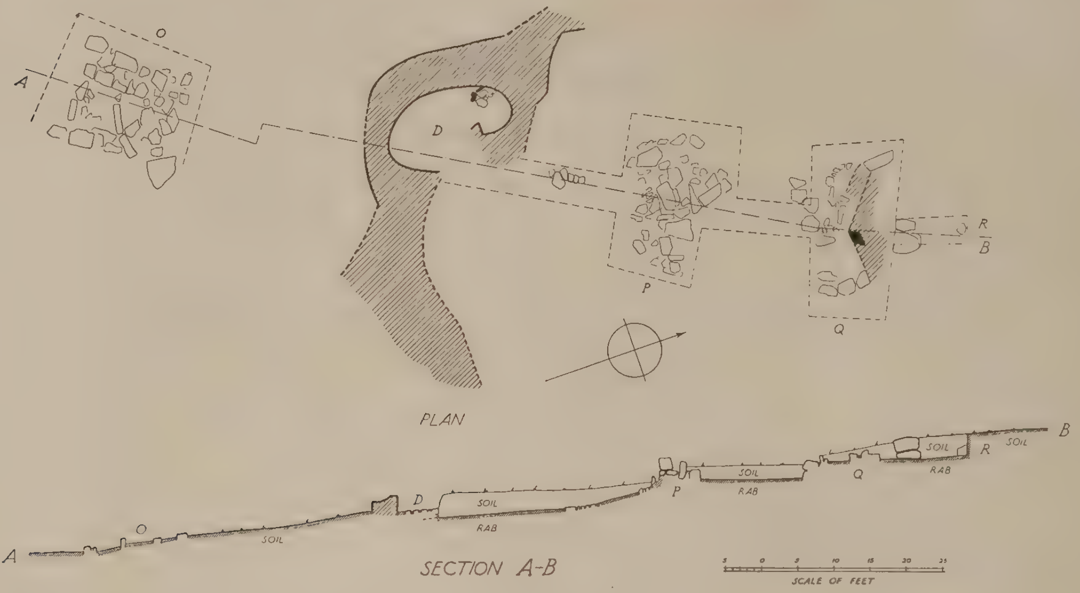

Fig. 3. Trenches east of House 5.

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[1] It is also quite possible that this stone formed a threshold to the hut *D* and was placed across the doorway to keep back the earth from the upper terrace, the top of which was at a somewhat higher level than the floor of *D*.

stones unworthy of being called paving, was covered by a layer of turf and black soil filled with small stones to an average depth of 2 ft. 6 in., and in this were found the following objects all of which are marked *VD*: 23 potsherds, 3 waterworn pebbles, 1 whetstone, 1 spindle-whorl (fig. 9, no. 3). The bulk of these finds occurred at the floor level, but just below the turf were found a spindle-whorl and a lug of a pot pierced with a string hole. The more important sherds from this hut are fully described on pp. 267 ff. The floor of the hut was made of rab and small stones packed down above the natural rab level, and though time did not permit the complete removal of all this filled-in material, seven of the sherds were found in it at the entrance.

A little to the north of the hut in the middle of the upper terrace is another group of stones, *P*, similar to the group marked *O* in the lower terrace, but rather more irregularly heaped together. The workmen, who had had the traditional pot of gold in mind since the beginning of the excavation, had looked upon this pile of stones with special interest, but though a long trench was cut from the hut *D* as far north as *R* in order to clean these stones and another group, *Q*, beyond them, nothing was found but one small sherd (213), a fragment of flint (*ES*), and 5 of the usual pebbles (*EN*, *EO*, *EP*, *EQ*, *ER*). To the north of *P* again lies the other group of stones, *Q*. Though most of this was found to be irregular, it had in it traces of walling, and in this walling was erected a tall stone 6 ft. 3 in. long. This bit of masonry seemed in some way associated with a low bank, *ST* (pl. LXXII), which appeared to form the northern boundary of the upper terrace. As may be seen in the section of this area (fig. 3), the depth of soil above the rab is less at *Q* than at *D*. The situation here is very much confused, however, and since it was felt that more digging in this vicinity was unlikely to yield further information, work was discontinued.

While House 5 was being done, work was also carried out on no. 3 (fig. 4). This house had been almost completely excavated on the inside in 1928, but lack of time and labour had made it impossible to clear the outside of the house or to remove all the debris. This had been left in three piles, one outside of each entrance and one in the court marked *A*. The rest had been piled up on the walls. In 1931 all of this was removed to the tips at III and V, and the ground under the pile in *A* excavated to the rab. Nothing was found there, however. Before the tip at III was made, a T-shaped trench was dug on the spot to be sure that there was nothing of importance in the ground. Nothing was found, however, but two more water-worn pebbles which occurred just above the rab. The soil here above the rab averaged 18 in. deep. It is important to note that while scores of these pebbles have been found in the houses, these are the only ones which occurred in the trenches made preparatory to placing the tips, all of which are at some little distance from the dwellings. This, combined with the discovery of a 'hoard' of 34 of them in the lower terrace of House 3 in 1928, is good evidence that the people of Chysauster brought them to the site for some purpose, and that they do not occur there naturally.

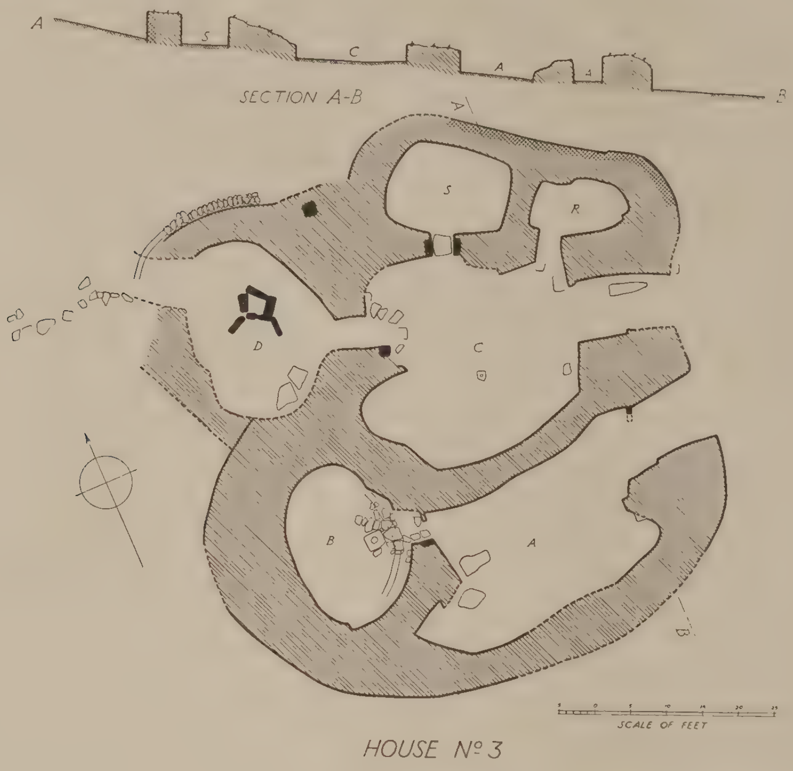

Fig. 4. House 3.

In addition to removing the debris, the interior walls were completely cleared. In 1928 only enough had been done to be sure of the position of most of them. It was also found that the wall of *B* was erected before that of *D*, for the wall of *D* was not bonded with that of *B* but merely built against it. There is no way of showing, however, that any great interval of time elapsed between the building of the different parts of the house, or that the whole building, in spite of its peculiarities, was not all planned at the same time. The writer is also satisfied that whatever the curious erection is in room *D*, it is not a hearth, as was surmised in the report of the work in 1928. In 1931 hearths were found in the little hut *D* attached to House 5, and also in House 7, but they were clearly marked by abundant charcoal and rab burned red and yellow, which did not occur at this spot in House 3. Some stones on the north side of the entrance to *C* were found by the foreman to be leaning dangerously from their places when he visited the site in January 1931, and these he readjusted at that time.

Reference has already been made to the modern stone wall or hedge that was built partly upon the original wall of House 5. This hedge, which was removed in 1931, ran from *X* on the site plan along the northern walls of Houses 5 and 3, and finally along the eastern and northern sides of House 1. This entire hedge between *X* and House 1 was removed except the portion built upon the wall of House 5, as was another similar hedge that ran from XVI to IX. As has already been mentioned, it was very easy to see at no. 5 the points where the hedge abutted upon the house wall, but impossible to separate the old from the modern masonry where the old served as the foundation of the new. The points at which the hedge abutted upon the house wall were also very easy to detect in House 3. Furthermore, as was not the case in House 5, it was perfectly clear, especially from the inside of the house, how high up the old wall remained, where it served as the foundation for the hedge, for the old wall was much wider than the new. Consequently, it was possible to remove the modern hedge. Some traces of modern-looking masonry remain, however, in the section outside of room *R*, and it would seem as though the builders of the new wall had partly reconstructed the facing of the old one at this point. Since these patches of modern masonry could not possibly be removed, this part of the wall was left as it was found.

Much of the rest of the exterior wall of House 3 was in bad repair, but it remained in one place to a height of 4 ft. Outside the north-west corner another drain was found, evidently designed to keep room *D* dry by draining the water off before it percolated through the wall. Like the other drains, it was covered with flat slabs, and consisted either of a stone-faced channel 7 in. wide and 8 in. deep or of a mere gutter in the rab of the same depth but slightly wider. This drain was lost sight of under the stone-paved passage leading westward from room *D*. It has since occurred to the writer that perhaps the rut in the rab noted in 1928 in the main entrance to *C* might have been the last trace of another of these drains.

The most important result, however, of clearing the outside of this house was the fact that by so doing room *S* was discovered. This room measures 16 ft. 9 in. by 12 ft. 4 in., and the highest remaining part of its wall is 4 ft. high. Most of it is much lower, however, and some was probably destroyed accidentally in the hasty removal of the modern hedge, for in 1928 the writer came to the conclusion that no room existed here. This shows the advisability of first clearing the exteriors of structures such as this, so as to define the limits of the building before attempting to work out the interior plan. Though room *S* was dug down to the rab, very little was found, as is usually the case with rooms in this part of a Chysauster house. The part of the floor nearest *C* was filled in, however, to make it level, and the single paving stone in the doorway forms a considerable step up into *S*.

The completion of House 3 brought to light a few more finds which are listed below:

In room *S*: 6 pieces of slate, 1 piece of iron, 1 quartz pebble, 1 piece of flint naturally perforated.

Among the debris on the wall of *B*: 1 quartz pebble, 1 broken hammer stone (?) of granite (fig. 9, no. 4). The latter has been partially perforated from each side and is also encircled by a groove that intersects the perforations. These things were obviously thrown up unnoticed from *B* in 1928.

On the north side of *D*: 6 small sherds of very thick, very soft, bright red pottery, 4 of which occurred just above the drain; 1 fragment of flint and 1 of the usual pebbles.

Chiefly in *C* and *D*: a few very small sherds like those found there in 1928.

The only sherds of any interest may be described thus: nos. 1, 2, 3, found outside *D* above the drain, fairly fine, brick-red pottery, but extremely soft. No. 4 (fig. 9, no. 9), from same place as 1, 2, and 3, fairly hard, gritty pottery, reddish brown to black in colour and belonging to a vessel with a constricted mouth 5 in. in diameter and a bulbous body. It belongs, like the bulk of the pottery from this house, to the first century B.C. or the first century A.D.[1]

After the belated discovery of room *S* in House 3 by clearing the outside of the building, it was resolved that the exterior of no. 7 (fig. 5) should be traced before work was begun on the rooms themselves. The line of the outer wall of the house, though in most places only one course of masonry high and in one place demolished altogether, was easy to trace. The highest remaining exterior stone work is only 3½ ft. in height, though in the interior it is much more. The house measures 79 ft. by 69 ft. over all. The interior was, however, very much harder to trace, for it was badly ruined, and very little wall-facing remained. While attempts were being made to establish the exterior plan of the structure, a trench was very carefully opened across the interior of the house. It is represented on the plan of House 7 by the areas marked *A 1*, *A*, and *G 1*. This, like the initial trench in no. 5, was to determine the condition of the soil upon the floor of the house. It was very quickly obvious, however, that not only had the greater part of the inner wall-facing been destroyed, but that most of the interior had been seriously disturbed. Instead of the fairly clearly defined layers of soil, stones, and finally turf that were distinguished in no. 5, here everything was confusion. As an example, immediately outside the part of the boundary of section *B*, represented on the plan of the house (fig. 5) by a dotted line, was a low curving bank, which at first appeared to be the wall of the large round room generally found in this position in every house. But though such a wall must have been there at one time, the bank proved to be a pile of loose soil and bracken roots 2 ft. thick, but containing potsherds. Eight feet away, however, was found the usual stone with an artificial hollow in it, but this was covered by no more than 6 in. of turf. When the extremely disturbed condition of most of the house was beyond doubt, it was decided to divide it into such sections as seemed most convenient at the time, and to dig each section as a unit, but to pay no attention to the depths at which finds occurred, inasmuch as it was plain that such data would have no significance. Hearth *b* in section *B* proved, however, to be stratified, and was dug much more carefully. The finds have all been marked with the number of the house and letter of the section in which they occurred.

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[1] In all matters of dating pottery the writer is indebted for much assistance to Mr. Reginald Smith, F.S.A., Keeper of British and Mediaeval Antiquities at the British Museum and to Mr. Christopher Hawkes, F.S.A., of the same Department.

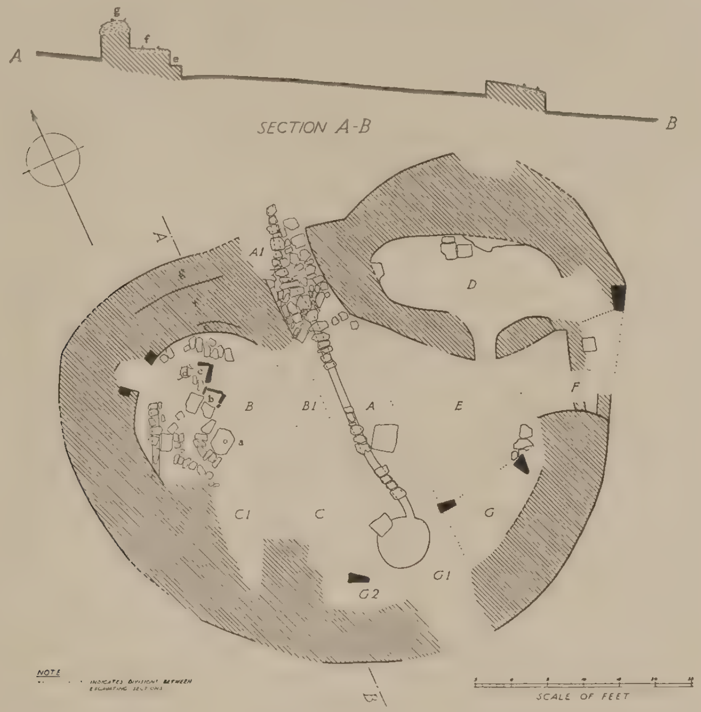

Fig. 5. House 7.

House 7 must have resembled in its essential features the usual Chysauster dwelling. The central court is clearly present with confused traces of an entrance at the eastern end and some remnants of the customary large round room opposite it. Little wall-facing remains in the court, and the best section is no more than 21 in. high. At the left of the entrance as one enters is the usual broad, shallow alcove and on the right the long, narrow room, but here neither so long nor so narrow as in no. 5. The breach in the wall at *G 1* is evidently modern, but the paved entrance at *A 1* is certainly ancient, though not, however, typical of Chysauster architecture. Indeed, the normal entrance at *F* seems to have been at least partly blocked by pieces of walling of rather small stones which were added at some time after this part of the house was finished. This entrance, as well as the eastern end of room *D*, is so badly ruined that it is impossible to say just what the original arrangement was in this quarter. At the north-east corner of this entrance, however, is a menhir-like block 5½ ft. high, which rather suggests the large corner stone usual in such a place. Outside the house and on the other side of the blocked entrance is the largest stone that has yet appeared in a Chysauster house. It measures 6 ft. 8 in. long, 4 ft. wide, and 1 ft. 3 in. high. The blocking of the entrance at *F* suggests that it was the original entrance of the house and that the other, *A 1*, being in an unusual position, was added later, but it would be very hard to prove that the two entrances were not part of the original plan. The highest piece of remaining wall at the blocked entrance is 2 ft. 10 in. high, and at the open one, 2 ft. 9 in.

Through this open entrance there passes a drain 48 ft. long. Like that in no. 5 it starts a little outside the house and runs across the courtyard, and like all the other drains at Chysauster it is a rather irregular gutter in the rab covered over with flat slabs of granite, but edged in places with small stones. It varies in width from 9 to 12 in., and in depth from 9 to 13 in. It appears, however, that at some recent time a cart track ran across the house through the modern gap at *G 1*, to the open entrance at *A 1*. The pressure of the cart wheels did much damage to the drain and cracked and displaced some of the stones that covered it. It was found to end, however, in the house in a large hollow in the rab 9 ft. in diameter and 18 in. deep, obviously intended as a reservoir. Though no continuation of the drain on the other side of the reservoir could be found, it must have existed at one time to lead the accumulating water away down the slope, unless we are to suppose that the occupants of the house preferred to wade in mud rather than take so little trouble. The disappearance of the outlet is not surprising when the great amount of disturbance of this part of the house is taken into consideration. Shortly after the drain and reservoir were opened a heavy rain interrupted the work, and water from a marshy bit of ground immediately outside the entrance *A 1* began to run again through the old channel illustrating very convincingly how it was intended to work. This 'drain' at least was meant not to keep water out of the house, but to bring it in.

At the southern side of the court and to the left of the visitor entering by the blocked entrance is the usual broad, shallow alcove. It is impossible to give any measurements for this because scarcely a trace of interior wall-facing survives, but there remains across it, as though to separate it from the court, a line of three large upright stones. The middle stone is 4 ft. 8 in. high, and the others 3 ft. and 3 ft. 6 in. respectively. These rest in soil just above the rab, and the middle one, which stands upon its smaller end, is trigged up by some little stones. Almost in line with these three is a large recumbent stone, and though it may conceivably have stood in the same row, it is more likely to have been placed originally by the edge of the reservoir to give solidity to the muddy brink. Though it is difficult to be positive that this line of stones is an original feature of the house, it seems quite likely that it either supported a partition, had something to do with closing off the alcove from the court, or held up a lean-to roof over the alcove, or perhaps with both. This idea was suggested by Lt.-Col. F. C. Hirst of Zennor, who has pointed out to the writer houses of the Chysauster type in that parish at Bosporthennis and Bosigran that seem to have similar large stones separating the alcove from the court.

Just west of the alcove is a V-shaped space marked *C 1* on the plan of the house. This it seemed did not represent an ancient feature, but was the result of modern quarrying or treasure seeking.

The roughly circular section marked *B* on the plan (fig. 5) represents the remnants of the large round room normally found opposite the entrance in a Chysauster house. It is still partially paved, and in this paving is set the usual large stone with a basin or cavity in it (*a*). In this case the basin is oval, 8 in. long, 6 in. wide, and 3 in. deep. The stone, like the others of its kind, is of the soft local stone called 'bastard granite', and the basin appears to have been ground out. Though the other paving of this room, like the Chysauster paving in general, rests upon the rab, this stone was found to have been set upon a layer of secondary paving placed between it and the rab evidently for greater stability. At the back of the room was found also another remnant of drain 12 in. deep and 9 in. wide, cut as usual in the rab and covered with flat stones. This goes into the wall, but where it opened on the outside of the house was not discovered. It was filled with fine black soil and small bits of charcoal. Near the drain is a niche in the wall 4 ft. wide and 5 ft. deep, and flanked on each side by a large upright 3½ ft. tall roughly squared by nature. On the north side of the round room is one of the best preserved pieces of masonry walling in any house on the site, a section which in strange contrast to the rest of no. 7 is still 6 ft. 3 in. high. This must be nearly its original height. The wall of the room itself is only 3 ft. 10 in. high, but the outer portion is carried up another 2 ft. 5 in. into the 'parapet' (*g*) observable in this same position in some of the other houses. What it was is difficult to decide, but if the outer edge of the roof was supported upon it, a broad and convenient shelf about breast high would have been left around the interior of the room. In the inner side of the wall is built another lower shelf, evidently a bench (*e*), 15 in. wide, 14 in. high, and 7 ft. long, which extends along the part of the wall nearest to the two hearths. The wall with its parapet and bench are well seen in the section attached to the plan of House 7 (fig. 5).

The most interesting features of the round room, however, were the two hearths, *b* and *c*. These were formed by narrow stones set on edge, and measured respectively 2 ft. 6 in. by 1 ft. 9 in. and 2 ft. by 2 ft. Throughout the greater part of the remaining paved area of the room there was above and between, but not beneath, the paving stones a bright red clayey substance 2 to 3 in. thick and mixed with charcoal. This seemed to be burned rab of the same sort found in the small hut *D* outside of House 5. It seemed possible that this burned rab had here been spread on the floor of the house and tramped down to make it more even. At *d* close to hearth *c* was a hole in the rab 14 in. deep below the paving and the same in diameter. This was filled with black soil, and above it upon the floor was a patch 2 ft. in diameter and 6 in. thick of black soil mixed with charcoal. In hearth *c* was the same layer of rab burned red, another of charcoal, and 8 pieces of slate which seemed to to have formed a paving in the fireplace itself. In hearth *b* was again the layer of rab burned red mixed with charcoal, and sandwiched in it was a layer of potsherds. These included part of a vessel of La Tène descent though of late date (p. 262, no. 8) and a native imitation of a Roman rim (p. 265, no. 20) that is perhaps as late as the latter part of the third century A.D. This layer of sherds was on the level of the paving. Below them came a stratum of the same sort of yellow clay, evidently burned rab, that occurred in the hut *D* subsidiary to House 5. This was 2 in. thick. Below it was another layer of sherds, most of which belonged to a large jar probably of the first century A.D. (p. 262, no. 7), but these were burned into a solid mass with the surrounding rab. Some pieces of the clay were, indeed, at first taken to be sherds and their real nature was only found when an attempt was made to wash them. Below this stratum again was a very thin and irregular layer of grey ash, and, underneath once more, another stratum of burned yellow rab 3 in. thick. The total thickness of the deposits in this hearth was 9 in.

The remaining room *D* appears to have measured about 27 ft. long by 11 ft. wide and is entered from the court by a narrow doorway. Though this room is the best preserved in the house, its eastern end is very much confused. It contained only one small patch of paving, and the highest section of wall is no more than 2 ft. 5 in. high. It was found in a curious condition, the western end being filled with stones and the eastern end with soil. The filling was obviously intentional and had converted the room into a raised platform.

As in the case of House 5, the whole of no. 7 was cleared to the rab, and afterwards, when all the paving had been raised and replaced, the floor of the house was filled in again with soil to the top of the paving stones. This was presumably the original floor level.

The destruction of House 7 is probably due in a large measure to the fact that in modern times hedges have been built near it, and no doubt a good deal of its stone has gone into them. Another factor may, however, have been partly responsible. Mr. Hall, the tenant at Chysauster, who was 72 in 1931, told the writer that he distinctly remembered being taken to the ruins of this house at the age of 3 to hear a sermon. On that occasion, he said, the niche in the round room was used as the pulpit. Perhaps the destruction of part of the wall of the round room was to facilitate a view of the preacher, and it is likely that the rest of it was not demolished because it afforded him shelter. Possibly the filling up of room *D* had also something to do with this use of the house. The site was in fact called the Chapels[1] in the last century. It is interesting also to note that some puzzling additions to the neighbouring Iron Age fortress called Chûn Castle were found by Mr. Leeds to have been made to facilitate 'preachings'.[2]

To the south of no. 7 are two terraces, a small upper one 88 ft. long and from 16 to 36 ft. wide, and a lower much larger one 130 ft. long and 88 ft. wide. This larger terrace extends far outside the boundary of H.M. Office of Works, and is about equal in area to the terrace of nos. 3 and 5 combined. Time did not permit trenching it, but the foreman, who before the excavation had dug into the flanking banks to erect the fence posts for the boundary, found them to be composed largely of loose stones.

At VIII on the site plan (pl. LXXII) in the corner of the stone boundary hedge a good deal of the debris from no. 7 was dumped. As in the other two cases, trenches were dug there previously to make sure that there was nothing of importance in the ground, and as elsewhere the test proved negative.

It will now be well to consider more fully the finds from the two houses excavated in 1931, and the following is the list of objects found in House 7. The finds are arranged by the sections shown on the plan of the house (fig. 5) and each object is marked according to its house and section. The addition of

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[1] See W. C. Borlase, *Age of Saints* (Truro, 1893), p. 52.

[2] *Archaeologia*, lxxvi, 215.

d upon an object to the designation of its section means that it occurred in one of the drains, and *o* means that it was found below the paving. These objects are not listed separately, however, since no substantial difference could be detected between them and the other finds. There was no reason at all to suppose that there were two periods or levels of occupation in the house. An added *H* indicates that the object occurred outside the house wall but in the segment of the exterior corresponding to an interior division.

A

132 sherds.
48 pieces of slate.
32 water-worn pebbles.
2 quartz crystals.
1 piece of flint naturally perforated.
16 pieces of limonite.

A1

1 piece of iron.
1 sherd.
3 pieces of slate.

A1H

1 piece of slate.
1 pebble.
1 stone 37 in. long with small depression worked near one end. The end with the depression was broken off and preserved.

B

(not including finds from hearths)
278 sherds.
51 pieces of slate. One is ground flat on one side.
35 water-worn pebbles.
1 quartz crystal.
1 flint fragment.
2 pieces of limonite.
1 piece of ochre and limonite mixed.
1 piece of ochre.
4 spindle-whorls.
3 and possibly 4 whetstones.
2 pieces of greisen (quartz and mica), local but shaped by rubbing.
1 hammer stone.
1 stone with a cup in it 2 in. in diameter and $\frac{5}{8}$ in. deep (fig. 7, no. 7).
1 grooved stone smoothed at the smaller end by use, but the stone is probably too soft for use as a hammer stone (fig. 7, no. 6).

Bc

1 pebble.
8 pieces of slate.

Bb

(upper stratum of sherds)
238 sherds.
2 pieces of slate.
2 pebbles.

Bb2

(lower stratum of sherds)
28 sherds.

B1

190 sherds.
20 pieces of slate.
4 pebbles, 2 are epidiorite, water-worn but artificially flattened at one end. The other two are aplite and granite respectively.
7 pieces of limonite.
2 pieces of clinker.
1 spindle-whorl.
1 stone disc (unperforated spindle whorl?).
1 whetstone.
1 fragment of a whetstone.

C

244 sherds.
42 pieces of slate. One is ground flat on one side.
32 pebbles.
1 quartz crystal.
1 flint fragment.
2 pieces of limonite.
1 iron nail (modern ?).
3 whetstones.
1 fragment of lignite bracelet.
1 piece of sandstone.

C1

105 sherds.
9 pieces of slate.
8 pebbles.
2 flint fragments.
1 whetstone.

CH

1 pebble.

D

6 sherds.
3 pebbles.
2 pieces of limonite.
1 stone with a cup like that from *B*, but the stone is somewhat larger.

DH

1 pebble.

E

11 sherds.
18 pieces of slate.
5 pebbles.
1 flint fragment.
1 quartz crystal.

F

3 sherds.
5 pieces of slate.
1 pebble.

G

37 sherds.
1 piece of slate.
2 pebbles.
2 pieces of limonite.
1 piece of greenstone.

G1

28 sherds.
15 pieces of slate.
10 pebbles.
3 pieces of limonite.

G2

4 sherds.
5 pieces of slate.
2 pebbles.

GH

13 sherds.
3 pieces of slate.
3 pebbles.
2 whetstones.

G2H

4 sherds.
2 pebbles.

The following is a summary of the finds from House 7:

1,322 sherds.
231 pieces of slate.
145 water-worn pebbles.
34 pieces of limonite.
11 or 12 whetstones and fragments.
6 pieces of flint.
5 quartz crystals.
5 spindle-whorls.
2 pieces of iron, of which one is a nail perhaps recent.
2 pieces of clinker.
2 pieces of greisen used for rubbing.
2 stones with small cups worked in them.

1 large stone with small depression perhaps resembling the above; 1 hammer stone; 1 grooved stone; 1 piece of ochre; 1 piece of ochre and limonite mixed; 1 small stone disc, possibly an unfinished spindle-whorl; 1 fragment of a lignite bracelet; 1 piece of sandstone; 1 piece of greenstone.

The most surprising thing about this list of finds is the great quantity of material that it includes, for House 5 produced no more than 209 sherds, and House 3 only 120 as compared with the 1,322 from here. It may be a reasonable conclusion that this dwelling was occupied longer than the other two, and when the pottery is more fully examined, further reasons for this will appear. If the distribution of the finds within the house is studied, it will be seen that they were most numerous in the south-west part of the area that was once the court, and in the vicinity of the round room, *B* on the plan (fig. 5). The same distribution will be noted in House 5, and a somewhat similar one was observed in no. 3.

A more detailed consideration of the pottery from House 7 will now be taken up with a view to determining the date of the house and the cultural affinities of its inhabitants. Such a study in this place will also facilitate the description of the less plentiful pottery from House 5, which will be taken up later.

A conservative estimate of the earlier limit of date of House 7, judging from the pottery, is the second or first century B.C.,[1] though it might be earlier, and the later limit is probably the latter half of the third century A.D. Though it would not be fair to infer that the house was occupied any earlier than the period already suggested, it would be worth while nevertheless to remember that the preponderance of comparatively late pottery found in it may be due to the fact that the pieces of the first pots to be broken by the occupants would, for the most part, be either trampled into dust or cleared out from time to time. On this account the great quantity of pottery contemporary with the Roman occupation of Britain should not be allowed to outweigh the fact that some definitely pre-Roman sherds did occur. Had a midden been found, the relative importance of the two types of pottery could perhaps have been tested, for a midden, unlike a house, should tend to preserve impartially debris of all periods.

Though much of the pottery is contemporary with true Roman wares, it is safe to say that none of it was imported from the civilized part of Roman

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[1] As noted on p. 266, however, Mr. C. A. Ralegh Radford, F.S.A., believes that with the exception of a few stray sherds all the pottery from House 7 is of the first century A.D. or later, and he suggests that the very few early fragments may not really date the house. The possible reasons, stated above, for the preponderance of late pottery should not be overlooked, however.

Britain, but that it was all made in the vicinity, if not at Chysauster itself. Though it is difficult to be certain in all cases, some of the pottery was wheel-made and some was not. Indications of wheel turning are more frequent on rims than on bases, and in the case of the only large jar of which both rim and base survive it seems likely that the body of the vessel was moulded by hand and that it was only turned on a wheel to shape the rim.

The following is a list of the more important finds of pottery from House 7.

Group 1

Early sherds mainly of Iron Age date

No. 1 (fig. 6, no. 1). From *C*. Fragment of a broad flat-topped rim 12⅛ in. in diameter, of very gritty soft brown pottery with remnants of a glossy black finish. This is a type of rim that belongs to the beginning of the Iron Age in Britain,[1] the so-called Hallstatt phase, but in view of the other finds from House 7 it can hardly be said that it must date from the earliest days of the British Iron Age. Rather it would seem reasonable to regard it as a survival belonging to the second or first centuries B.C.

No. 2. From *G*. Similar to no. 1 but thicker. Part of rim of very large vessel 16½ in. in diam.

No. 3 (fig. 7, no. 1). From *G 1*. A hard sherd of black pottery with a glossy surface and ornament that occurs at Glastonbury. Sherds of an Iron Age bowl with very similar ornament were found in the fort and *fogou* at Treveneague in the neighbouring parish of St. Hilary.[2] This probably dates between 100 B.C. and A.D. 50.

No. 4 (fig. 7, no. 2). From *B*. A sherd of soft brownish yellow gritty pottery, rather thick and ornamented with a very degraded example of the 'duck pattern' found by Mr. E. Thurlow Leeds at Chûn Castle,[3] another Iron Age site in the vicinity. Below the ducks are two incised lines. This sherd is probably of the same date as no. 3.

No. 5 (fig. 6, no. 2). From *B*. Part of a vessel 5⅞ in. in diameter at the rim and with nearly vertical sides upon which were two cordons. The pottery is chocolate coloured, fairly hard, and less gritty than most. It has a distinctly La Tène appearance and probably dates from the late first century B.C. or the first century A.D.

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[1] For a recent find of somewhat similar rims, see E. Thurlow Leeds, *Antiquaries Journal*, vol. xi, p. 399.

[2] H. O'Neill Hencken, *op. cit.*, p. 145.

[3] E. Thurlow Leeds, *Archaeologia*, vol. lxxvi, p. 230 f.; H. O'Neill Hencken, *op. cit.*, pp. 127, 156-7.

Group 2

This consists of sherds in the main contemporary with the Roman occupation of Britain. Several of the pots were made in imitation of Roman forms and hence are in some degree datable.

No. 6 (fig. 6, no. 14). From *B*. This pot represented by numerous sherds could not be reconstructed, but its form is obvious enough. It is 9¼ in. in diameter at the mouth, 6¼ in. at the base, and stood about 10 in. high. The pottery is yellowish brown to chocolate brown in colour, baked hard but very coarse, and contains large lumps of felspar. The base appears to have been hand-made, but the rim was turned on a wheel. The form is typical of the closing years of the Iron Age and of the first years of the Roman occupation. It is probably earlier than A.D. 100.

No. 7 (fig. 6, no. 3). Found in *Bb 2*, the lower stratum of sherds in hearth *b* in section *B*. This jar, of which the upper part is represented by a large number of sherds, is of the same sort of pottery and was evidently of the same shape as no. 6, but was larger (10½ in. in diameter at the rim), and was ornamented on the shoulder with an incised wavy line between two similar parallel lines. The pottery is yellowish brown to chocolate brown in colour and is gritty and hard. The upper portion of the vessel at least was wheel-turned. It probably belongs to the first century A.D.

No. 8 (fig. 6, no. 4). From *Bb*, the upper layer in the same hearth, the lower layer of which produced no. 7. This consists of two sherds forming part of the rim of a jar of much the same shape as nos. 6 and 7 but smaller, its rim being 4⅝ in. in diameter. It was of fairly hard gritty pottery, black on the outside of the vessel and black to dark brown on the inside. The rim alone may be wheel-turned, and the fabric is of distinctly native Iron Age appearance. Nevertheless the fact that it was found in the stratum above no. 7 proves that it cannot be earlier than the latter part of the first century A.D. and illustrates the continuance of purely native types of pottery at Chysauster. Furthermore, it was associated with no. 20 which appears to belong to the third century A.D.

No. 9 (fig. 7, no. 3). From *Ad*. A small sherd of quite soft gritty pottery with a remnant of an incised curving line upon it. The pottery is badly fired, the surfaces of the sherd being reddish-brown, and the interior material greyish brown. Like no. 8 this would naturally be assigned to the Iron Age, but two other sherds, identical except for the incised line, occurred, one in *B* and the other in *Bb*, that is in the same stratigraphic position as nos. 8 and 20. This indicates that pottery distinctly native in every way lasted until at least the latter part of the first century A.D.

No. 10 (fig. 7, no. 4). From *C*. A sherd not a rim but having some parallel

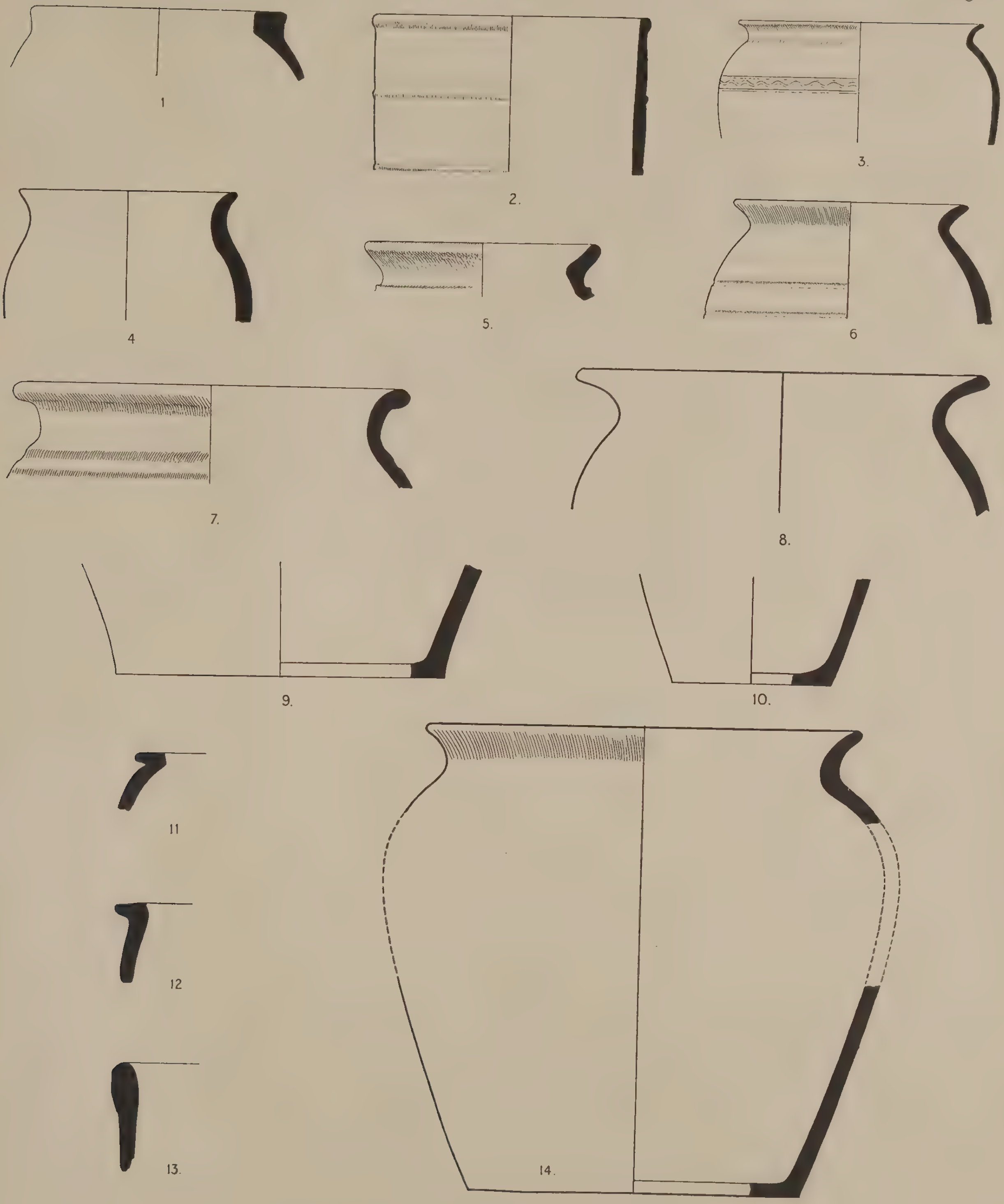

Fig. 6. Pottery from House 7. ($\frac{1}{3}$) except 3 and 5 ($\frac{1}{6}$).

incised lines upon it. This is really undatable, but is of much the same fabric as no. 9.

No. 11 (fig. 7, no. 5). From *B 1.* Part of a roughly made semicircular handle of soft gritty pottery, varying from reddish brown to black. This is a true handle unlike the usual Iron Age type of lug (see fig. 9, no. 1). It may perhaps, however, be imitated from handles that appear occasionally on Belgic pottery, though these are generally smaller. It may date from the first century A.D.

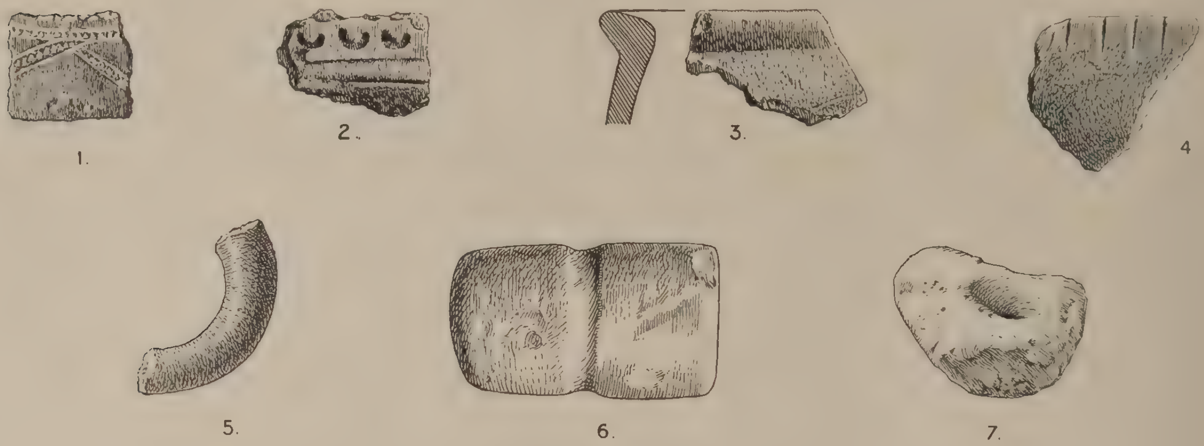

Fig. 7. Pottery and stone objects from House 7. ($\frac{1}{2}$) except 7 ($\frac{1}{4}$).

No. 12 (fig. 6, no. 5). From *AH.* Part of a large storage vessel. It is of very thick yellowish brown pottery, soft and badly baked, and containing numerous large pieces of felspar. It is 10 in. in diameter at the rim and the walls of the vessel are $\frac{1}{2}$ in. thick. It probably belongs to the first century A.D.

No. 13. From *C.* Part of the base of a large vessel $9\frac{3}{4}$ in. in diameter, of the same pottery as no. 12.

No. 14 (fig. 6, no. 6). From *C 1.* Rim of a small jar 5 in. in diameter of fairly hard chocolate-coloured pottery with two small horizontal grooves upon the body. It was probably made between A.D. 50 and A.D. 150.

No. 15 (fig. 8). From *B 1.* Three sherds of a small flanged bowl $6\frac{3}{4}$ in. in diameter at the rim. The pottery is light brown, gritty, and rather soft. It is probably of the same date as no. 14.

No. 16 (fig. 8). From *G.* Three sherds of a bowl of rounded profile $8\frac{1}{2}$ in. in maximum outside diameter. The rim has an interior groove as though for a lid, and just below the rim on the exterior there is a double cordon. The pottery is yellowish brown to black in colour, gritty, and fairly soft. This is a distinctly native piece, but is distantly related to the Roman flanged bowl of the same type as no. 15. This example is probably contemporary with or slightly later than no. 15.

No. 17 (fig. 6, no. 11). From *Bo.* Two sherds of a rim 10½ in. in diameter and of gritty, fairly soft, yellowish brown pottery belonging to a vessel with a bulbous body and a comparatively small mouth. It was probably made between A.D. 50 and A.D. 150.

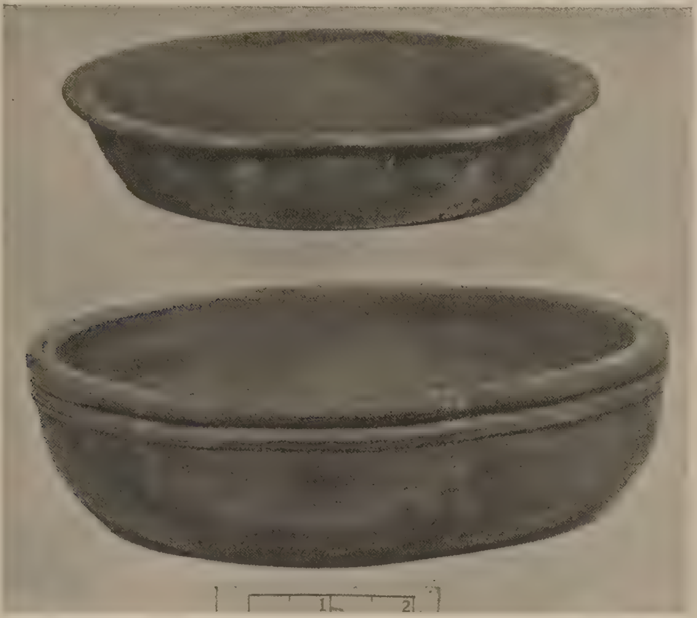

Fig. 8. Pottery from House 7: above, no. 15; below, no. 16.

No. 18 (fig. 6, no. 7). From *C 1.* A sherd of hard gritty pottery, yellowish brown to chocolate brown in colour with two low cordons below the rim which is 8½ in. in diameter. The pottery forming the body of the vessel is $\frac{3}{16}$ in. thick, and is thinner than most. It is probably about the same date as no. 17.

No. 19 (fig. 6, no. 12). From *Bo.* Two sherds of a rim 10½ in. in diameter of gritty pottery, fairly soft, and yellowish brown. It probably is of late first- or second-century date.

No. 20 (fig. 6, no. 8). From *Bb.* Three sherds of the rim of a jar of fairly hard chocolate-coloured pottery, 8¾ in. in diameter. This, judging from its profile, is the latest pottery from the house, and may belong to the latter half of the third century A.D.

Group 3

Miscellaneous sherds

No. 21 (fig. 6, no. 13). From *C*. A hard gritty sherd of yellowish brown to black pottery, with a plain rim difficult to parallel.

Nos. 22-25 (fig. 6, nos. 9, 10). No. 22 from *C*; others from *Bb*. Bases of pots like most of the preceding. Diameters: no. 22, 7 in.; no. 23, 5½ in.; no. 24, 3⅜ in.; no. 25, 4¾ in.

Nos. 26 and 27. From *C*. Two stumps of handles of soft pottery varying from yellowish brown to black.

NOTE

Since the above was written, Mr. C. A. Ralegh Radford has kindly examined this pottery and has contributed a somewhat different interpretation. In his opinion no sherds except nos. 3 and 4 from House 7, and possibly a few others, need be earlier than the first century A.D. These two sherds he does not believe to be later than the second century B.C. Mr. Radford has also remarked on the absence of curvilinear Glastonbury ornament of frequent local occurrence, as at Chûn Castle, which he would assign to the first century B.C. He therefore suggests that the few early sherds are mere strays and do not date House 7, which accordingly may not have been built until the first century A.D. But until more general agreement has been reached with regard to the chronology of Early Iron Age pottery in England and until the development of the type of architecture represented at Chysauster has been more fully investigated on other sites, it will not be safe to say positively whether Chysauster itself was founded in the first century A.D. or a century or two earlier.

Instead of describing now the other finds from House 7, it will be better to list here the material found in House 5, then to compare the pottery found in 5 with that in 7, and finally to discuss the other objects found in both the houses.

Nearly all the finds from House 5 came from the southern side of the court and the round room, and were plentiful in the south-west corner and near the door of the round room. This distribution corresponds closely with that of finds in no. 7, and presumably indicates that in that part of the houses most of the cooking and eating were done.

The following is a complete list of the finds in House 5. Since this was found in a much less disturbed condition than in no. 7, fuller details are included about the location of the finds.

209 sherds.[1] 1 fragment of rusted iron (AR)[2]; found in the middle of the court at a depth of 18½ in. not far above the rab. 5 pieces of flint; of these one is a well-made notched blade (BY, fig. 9, no. 2) found in the south-west corner of the court deep in the stratum of soil; one other piece is a water-worn pebble and the other three are mere fragments. 2 pieces of slag; one of these is iron slag and was found in the layer of soil on the south side of the court; the other (DH) is probably iron slag and was found 8 in. below the level of the paving in the round room, *B*, a little south of the entrance and associated with charcoal. 6 pieces of limonite; four (D, J, K, CD) were in the layer of soil in the south-west corner of the court; the others (DT and DU) were on the floor level in the round room, *B*. 2 mullers, one on top of the layer of stones; the other in the round room, *B*. 50 small water-worn pebbles, mostly quartz, but a few of granite and greenstone; one, however, was of sandstone from outside the granite area, and therefore from some little distance; these were found at all depths, but were more plentiful in the lower levels where most of the other objects were found. 46 pieces of slate, mostly small and all unworked. 1 piece of sandstone (BM). 1 piece of local aplite, artificially polished (AA), found in the court above the layer of stones. 1 pinite crystal (EF) found 3 in. above floor level in the round room (*B*), perhaps from Castle-an-Dinas or Zennor, respectively ¾ of a mile and 2½ miles away. 1 small lump of clay (CR) from outside the granite area, that is from some small distance. 1 lump of rich tin stone with one face perhaps worn by rubbing. Numerous quartz crystals. An iron horseshoe and another iron fragment, obviously modern, found just below the turf in the entrance.

The pottery from House 5 seems to indicate a shorter period of occupation than that from House 7, and this is corroborated to some extent by the fact that the finds were much less numerous. Otherwise the pottery is much the same as that from the neighbouring house.

House 5 would seem to have been built in the first century B.C. or A.D., and not to have been occupied later that the second century. The small hut *D* is quite as early as the main structure. The following is a list of the more important items.

No. 1 (fig. 9, no. 7). Marked *V* 180. A small sherd found under a paving stone near the door connecting the large round room with the court. It is of hard brown ware, ornamented with inferior decoration of curved slashes. Probably first century B.C. or A.D.

No. 2 (fig. 9, no. 1). From *D*. A lug pierced by a string hole. It is of soft gritty brown pottery of about the same date as no. 1.

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[1] Each sherd from House 5 was given a number and each other find one or more letters. These are given in parentheses whenever necessary. All finds are marked on a map of the house which will be kept with the finds.

[2] This list includes the finds from the adjacent terrace trenches, and 3 sherds found on the north side of the lower terrace, but not the few objects from the small hut *D*, which are listed separately on pp. 267-9.

No. 3. From *D.* Three sherds of the rim of a vessel with vertical sides and $7\frac{3}{4}$ in. in diameter at the rim. It was probably like no. 5 from House 7 in shape, though no trace of cordons remain. It is of hard chocolate-coloured pottery, only $\frac{3}{16}$ in. thick with a good surface and much finer than most. It probably belongs to the first or possibly the second century A.D.

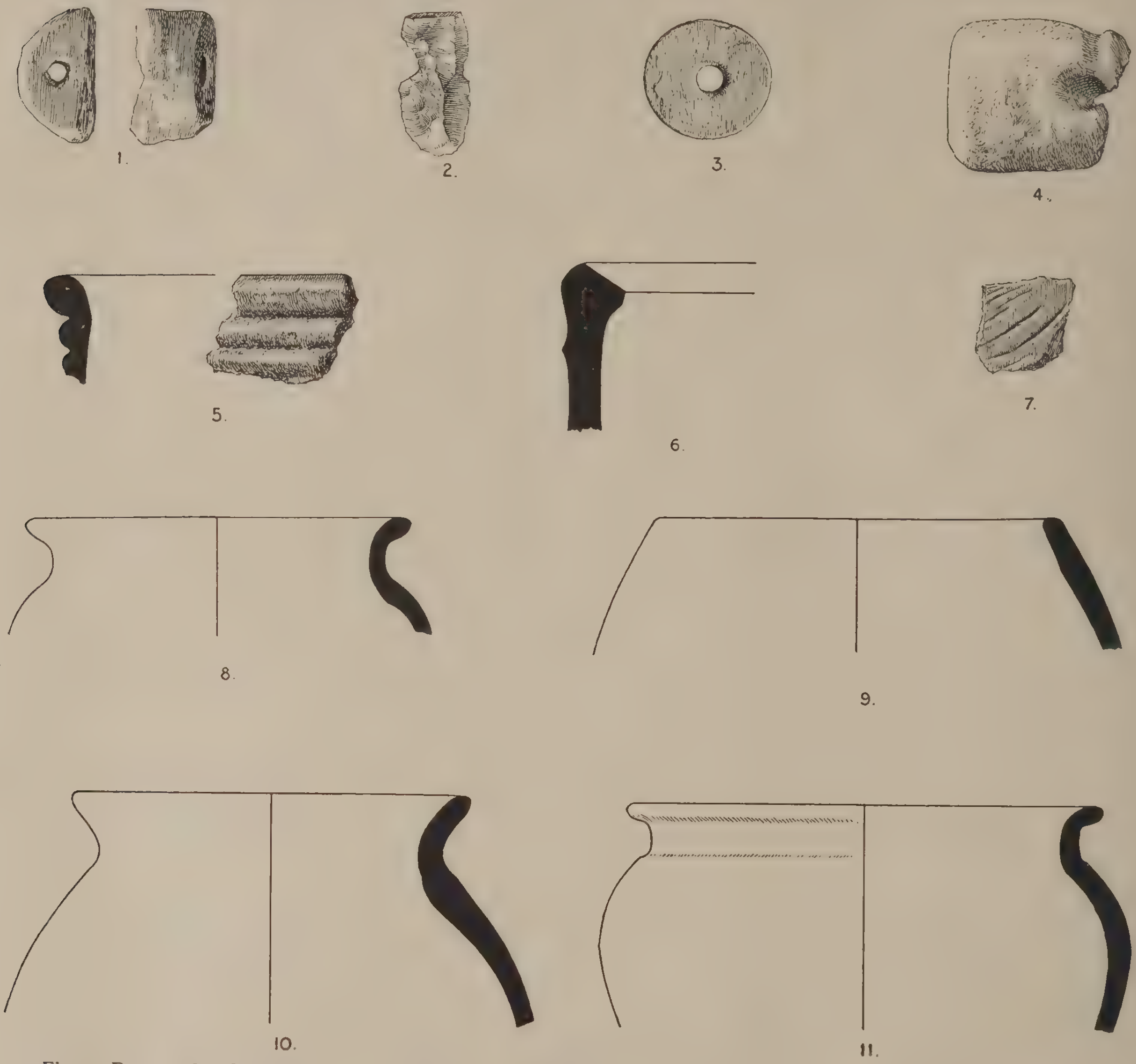

Fig. 9. Pottery, &c., from Houses 3, 5, and 6: 4 and 9 from House 3; 1–3, 5, 7, 8, 10, 11 from House 5; 6 from House 6; 2, notched flint blade; 3, slate spindle whorl: 4, granite object; 1, 5–11 pottery. ($\frac{1}{2}$) except 4 ($\frac{1}{4}$).

No. 4 (fig. 9, no. 5). From *D.* Part of a rim with two cordons below it.

This is a late La Tène type of rim and is made of hard pottery, chocolate-coloured and rather gritty. It probably belongs to the first century A.D.

No. 5 (fig. 9, no. 10). Marked *V* 146 and 148. From the soil stratum in the south-west corner of the court, and forming part of a jar somewhat like nos. 6, 7, and 8 from House 7, but it appears to have had a lug now broken off. Though it was certainly not even partially wheel-made like some of the jars from House 7, it is of very much finer pottery. The paste is grey, smooth, and well levigated, though very soft, and is covered with a blackish micaceous slip. The rim, 5 in. in diameter, is, however, a Romano-British shape of the first or early second centuries A.D.

No. 6 (fig. 9, no. 11). Marked *V* 161 a, 161 b, 167, 169. From the soil stratum in the round room close to the large stone with the cavity in it. It is wheel-made, of fairly hard but gritty ware, yellowish brown to black in colour, and is 6 in. in diameter at the rim. The pottery is comparatively thin, that forming the body of the vessel being only $\frac{3}{16}$ in. thick. It probably dates from between 75 and 150 A.D.

No. 7. Marked *V* 46. Found on the south side of the court deep in the soil stratum. It was part of a bowl with a bulbous body like no. 4 from House 3 (fig. 9, no. 9). It is of hard gritty ware, yellowish brown to black in colour, and probably belongs to the first or early second centuries A.D.

No. 8 (fig. 9, no. 8). Marked *V* 128 and 129. From just inside the round room. Hard chocolate-coloured ware, with a glossy surface, less gritty than most and $4\frac{7}{8}$ in. in diameter at the rim. The pottery of the body of the vessel was only $\frac{1}{8}$ in. thick. It probably belongs to the late first or second century A.D.

No. 9. Marked *V* 21, 62, 64. From the bottom of the soil stratum in the south-west corner of the court. They formed part of a vessel $5\frac{3}{4}$ in. in diameter at the rim, of chocolate-coloured pottery, fairly hard, less gritty than most and $\frac{1}{4}$ in. thick. In shape it resembled no. 6, but the rim is of a slightly later type, probably to be referred to the second century A.D.

No. 10. Marked *V* 43. Found at a depth of 15 in. in the lower terrace in the filled-in soil above the filled-in rab. It is a base fragment of rather soft gritty pottery with a glossy brown surface. It is difficult to date, but is A.D. rather than B.C.

No. 11. Marked *V* 189 and 197. Two sherds of very soft reddish pottery, undatable and quite unlike the others. See p. 252.

The other finds from Houses 5 and 7 will now be considered. In dealing with the various types of non-local stones and the minerals, Mr. E. H. Davison, B.Sc., F.G.S., of the Camborne School of Mines, very kindly lent his assistance, and his intimate knowledge of the geology of the locality has added much to the study of this portion of the finds. The classification of the geological and mineral substances in the above lists of finds is by him.

It might have been expected that more iron than three or four small amorphous lumps would have been found, but it must be remembered that finds of iron are extremely rare in Cornwall. This may be due to the damp climate and perhaps to the persistence of bronze in the Iron Age,[1] but not a single scrap of bronze has ever come to light at Chysauster. In this connexion the forty pieces of limonite must be taken into account. According to Mr. Davison, limonite is a natural form of iron rust, and a piece of iron completely reduced to rust cannot be distinguished from natural limonite. Hence some of the limonite may represent ancient iron objects. On the other hand, it may belong geologically to the very site of Chysauster, but Mr. Davison believes that there is a sufficient quantity of it among the finds to indicate that some of it at least was brought there by man. Like a small piece of ochre, probably of local occurrence from House 7, it might possibly have been used as pigment, and indeed House 7 also yielded a lump of limonite mixed with ochre. It is also possible that it was brought to the village for some extremely limited iron working, for House 5 produced a very small amount of iron slag.

As for tin working no further evidence came to light. W. C. Borlase found metallic tin in House 6,[2] and a potsherd with tin glaze was found associated with Iron Age sherds in House 3 in 1928.[3] The precise date of the first of these finds is uncertain, but the sherd with tin glaze from House 3 probably belongs to the end of the Iron Age. One large pebble of rich local tin ore did occur in House 5, but Mr. Davison suggests that one surface of it may be artificially worn, as though it had been used as a tool of some sort. At any rate a single piece of ore of a kind that was formerly abundant locally on the surface is no evidence for tin working.

A very puzzling feature of the list of finds is the great number of water-worn pebbles that were found in scores in the houses. As has already been mentioned, the fact that they did not occur except in very small numbers away from the houses, and the finding of a hoard of them in the terrace of House 3 in 1928 indicate that they were brought to the site by the inhabitants for some purpose. In 1928 the writer believed that they were sling stones, and that may be the true explanation of many of them, but during the last season's work similar ones were found mostly about as large as a walnut but varying from the size of a pea to that of a man's fist. They show no signs of fire, however, and hence cannot have been used as pot-boilers. Most of the pebbles were of cream coloured quartz, but a few were of granite or greenstone. The latter had been brought from outside the granite area, that is from a place some distance away.

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[1] H. O'Neill Hencken, *op. cit.*, p. 107.

[2] *Archaeological Journal*, vol. xxx, p. 339.

[3] *Journal of the British Archaeological Association*, 1928, p. 160.

Another puzzling question is the presence of hundreds of small fragments of slate, for these, like the pieces of greenstone, were brought to the village from some distance. Though various types of slate occurred, it was not possible to determine their exact provenance. None appeared to be intentionally shaped, and there is certainly no reason to suppose that they were used for roofing in the Roman manner. The only suggestion that occurs to the writer is that if slate is shattered, it breaks into fragments which often have edges and points suitable for certain limited household purposes. A slate edge, however, is by no means durable, and any fragment sharp enough to use would soon be dulled and thrown away, whereupon another piece would be shattered in the hope of obtaining another edge. Some such state of affairs as this would explain the great quantity of small fragments found in the houses. Like the slate and greenstone, a few pieces of sandstone, one of them a water-worn pebble, had been brought from outside the granite area. The few quartz crystals, however, are local and may be of no significance, but some were large enough to attract attention and may have been collected by the inhabitants.

As in 1928 a few pieces of flint were found. Of the thirteen pieces, ten were merely small fragments, one had a natural perforation, one was a water-worn pebble, and the remaining piece a well-made notched blade. Three other notched blades, almost identical with this one, have been found by Lt.-Col. F. C. Hirst in Zennor parish, near sites that may be about contemporary with Chysauster. Thus it seems that, like the Iron Age people of Chûn Castle, the folk of Chysauster still used a limited amount of flint. Here we have one more small bit of evidence against calling surface finds 'neolithic'. Much has been written to prove that the prehistoric Cornish imported their flint, and this may well have been true of some of it, but a number of sources of supply existed locally, the nearest to Chysauster being at Ludgvan about two and a half miles away.[1]

Another group of stones, though of problematical importance, deserves mention. These are four small, hard, smooth boulders of close-grained bluish stone. Two of them were found in a hole, possibly a well, in House 4, and the other two came to light in Houses 3 and 7. The two from House 4 are, according to Mr. Davison, of epidiorite from Gulval, the parish in which Chysauster is situated. The other two are of shorl rock, local to the site of Chysauster itself. The significance of these stones is uncertain, but no others like them were noted in the immediate vicinity. Furthermore, Lt.-Col. F. C. Hirst has found no less than eighteen similar stones, mostly sea-worn granite boulders, associated with or close to early sites, some like Chysauster, in Zennor parish.

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[1] William Borlase, *Natural History of Cornwall* (Oxford, 1758), p. 106.

As for the spindle-whorls, evidence of weaving, and the fragment of a lignite bracelet, they are common to most sites culturally related to this general period.

Apart from the three houses upon which most of the work was done in 1931, five others exist upon the site. Two of these, nos. 2 and 8, lie entirely outside the area under the guardianship of H.M. Office of Works, and nothing was done there except to make plans of them with the permission of Col. C. R. R. Malone, J.P., the owner. House 1 lies upon the edge of the area with its eastern wall forming part of the boundary. Apart from planning, nothing was done here except to remove the modern stone hedge that extended along the northern sides of Houses 3 and 5 and finally abutted upon the eastern wall of House 1. When it was removed, the original house wall was seen behind it. The entrance to the house, now blocked, is marked by two upright stones in the wall at II on the site plan (pl. LXXII). It is to be feared, however, that the building of the hedge along so much of the wall of this house has left it in a sadly mutilated condition. This, however, does not mean that it does not contain important finds, for no. 7, though badly ruined, provided a surprising amount of material. A narrow terrace lies below House 1.

Since Houses 4 and 6 have been described elsewhere by the writer, it will not be necessary to discuss them again in detail.[1] It will suffice to say that they are larger and more elaborate than the others though adhering to the same general plan. Judging by the amounts of pottery, etc., that have been found in the three houses most recently excavated, not much was saved from nos. 4 and 6, and all that can be said of their date is that they are in a general way contemporary with Houses 3, 5, and 7.

Since Houses 4 and 6, however, were overgrown and becoming dilapidated, it was decided after 7 was finished to do such judicious repairs as seemed feasible (figs. 10 and 11). At 4 the interior of the house was first cleared of what fallen stone lay upon the surface, and the walls were scraped of vegetation. When this had been done, it was seen that not only had the original excavators[2] failed to follow and clear the whole of the inside walling, but they, or others, had built up the walls with fallen stones above the old masonry and in some cases had not followed precisely the original line. The difference between the old walling of heavier and more solidly set stones and the recent

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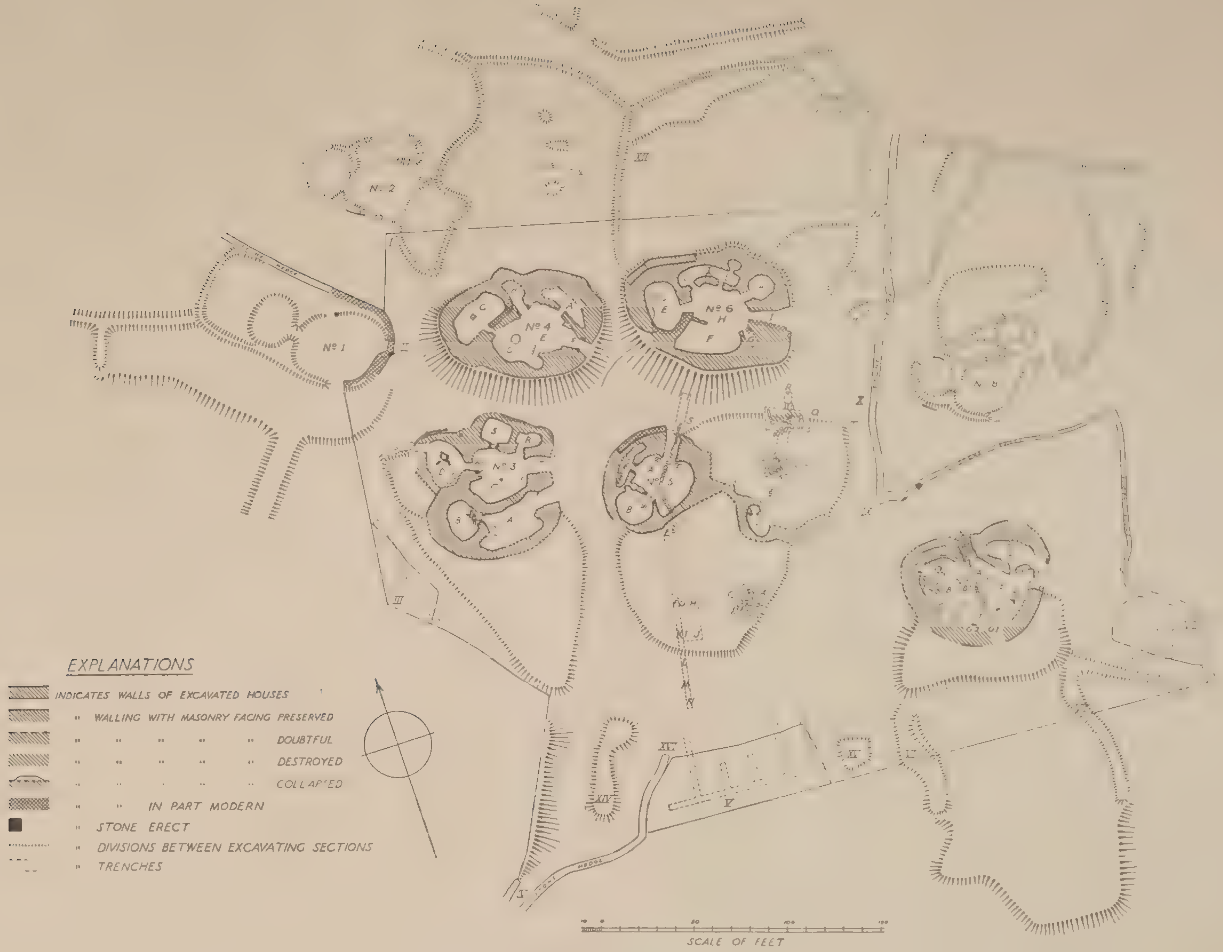
[1] H. O'Neill Hencken, *op. cit.*, pp. 133-6; *Journal of the British Archaeological Association*, 1928, pp. 146-9. Note that in the latter publication the houses are numbered differently.

[2] For an account of their work see *Transactions of the Penzance Society*, New Series, vol. iv, (1893-8), pp. 106-7.



Chysauster: General Plan

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additions of small loosely and irregularly set ones is easy for the practised eye to detect. Still, in spite of these alterations, the plan of House 4 does not seem to have been materially altered. The entrance had never been cleared out, however, and when this was done it was seen to be shaped a little like an hour-glass with a large upright at either side at the narrowest point. This is different from the other fully excavated houses, but resembles the construction of the entrance at Chûn Castle. In the court *E* is a pit 4 ft. deep. This looks as though it might have at one time been a well, and after a heavy rain it had 3 ft. of water in it, but this was gone in three days. At any rate, the house could not have been supplied with water brought in through the entrance as in the case of 5 and 7 on account of the slope of the ground.

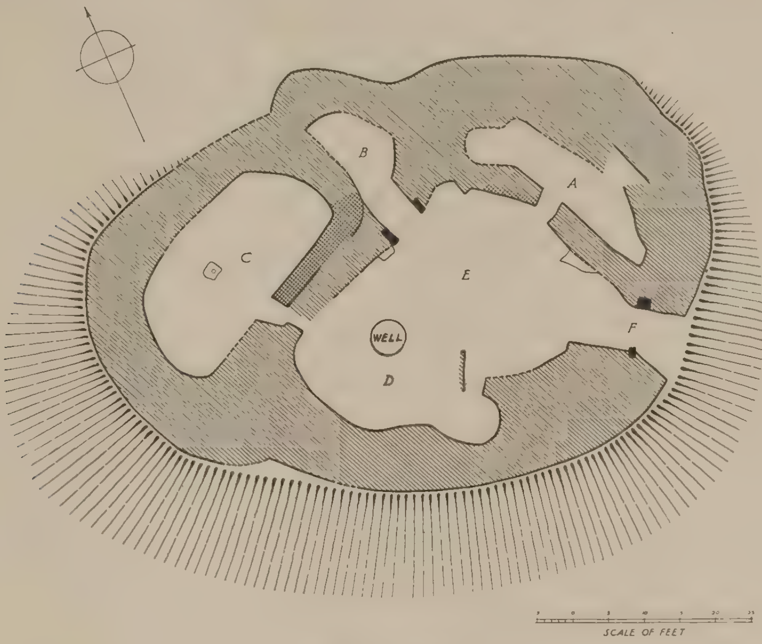

Fig. 10. House 4.

The greater part of the outside wall was also cleared of fallen debris, a piece of work omitted by the previous excavators. The wall was found in better condition than the exterior walls of most of the other houses, and in the best preserved place remained to a height of 4½ ft. At one point on the south side, however, the upper courses had been forced outward by roots, and here a large stone was placed against the wall to buttress it. When the south side of the outer wall was cleared, it was also evident that House 4 had been built upon a specially constructed platform of earth and stones to equalize the slope of the hillside which at this point is quite steep. In the course of the work on 4, pieces of slate, some of the usual pebbles, and a few small nondescript sherds were found. These were marked like those from House 7 with the number of the house and the letter of the section from which they came (for letters of the sections, see fig. 10). Just south of the entrance of 4 was a small mound which seemed to be the tip left by the excavators of this house. This inconspicuous tip and the finding in 1931 of a few objects in the most superficial sort of digging suggest that though 4 has already been disturbed, it is still worth excavating, and that by this means its date and plan might be more precisely determined.

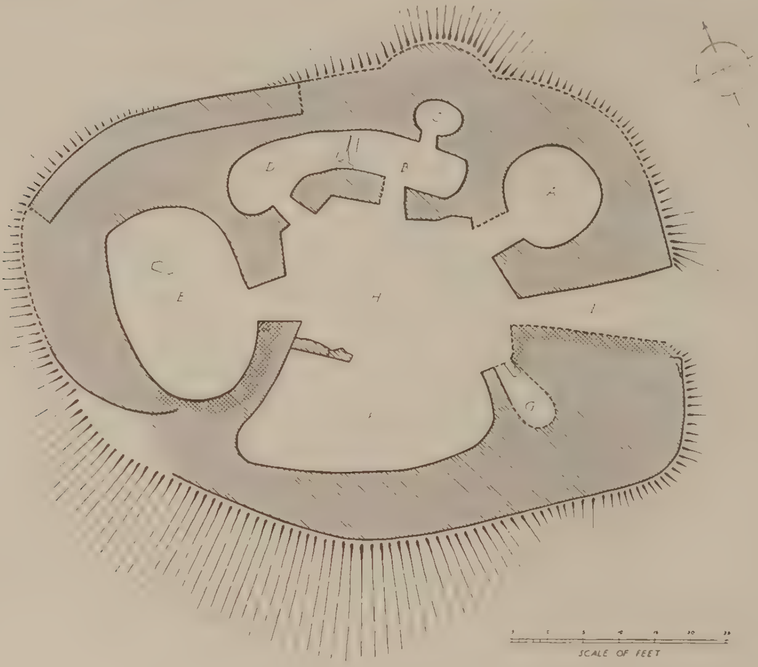

Fig. 11. House 6.

W. C. Borlase appears to have treated House 6 (fig. 11) in much the same way that the excavators of 4 dealt with it.[1] The outside and the entrance were not cleared, and it was found when the vegetation had been scraped off the interior walls that they had been increased in height by modern additions of small loosely laid stones, but here much harder to distinguish from the original masonry. The southern wall of room *E* had also been rebuilt on the wrong line so that the room has been made somewhat larger on that side than it was originally. This was found as the exterior was being cleared, for on the south-west side of the house the outside wall, which is old, threatened, if followed, to intersect the recent inside wall built by Borlase. Since insufficient time remained to pursue this matter, it had to be abandoned, but excavation in room *E* might well reveal the old foundation of the interior. It was also into the south-west corner of the entrance to room *E* that Borlase built the stone basin that has given rise to much comment. The excavator himself, however, confesses that he found it near by, evidently not *in situ*, and built it into this corner of the wall.[1] Loose stones on the ground were removed from the house, and the old walls in bad repair in rooms *A* and *B* were strengthened with turf. In cutting this turf some sherds of rather soft brown pottery were found just below the surface, and a few objects of the usual kind came to light about the house. These were also marked with the house number and the appropriate letter for the section (see fig. 11). Like the finds from 4, they suggest that re-excavation of this house would be worth while. One of the sherds (fig. 9, no. 6) is of dark pottery, gritty and fairly soft but not easy to parallel. Somewhat similar sherds, now at the British Museum, were found, however, in the cave at Brixham in Devonshire and represent a mixture of Bronze Age and Iron Age features. But there is, of course, no assurance that pottery of this sort is extremely early in the Iron Age.

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[1] For his excavation, *Archaeological Journal*, vol. xxx, pp. 336f.

Attempts were also made to clear the entrance of no. 6 and also the little room *G* where fallen masonry and rebuilt walling have obscured the plan to some extent. Time did not permit this work to be carried far, but at the entrance to *G* a very small stone basin was found upside down. This was left where it was found. A large part of the exterior of the house was also cleared and proved to be in rather better repair than most of the others. Like 4 the house had been built upon an artificial platform of earth and stones upon the sloping hill-side.

Before passing on to the more general consideration of the site, it will be well to examine the stone basins with which every house thus far excavated is provided. In the first place the normal position for these basins is in the large room opposite the main entrance to the house, and this implies that they all served a common purpose. Some have indeed been found elsewhere, but they were upside down and hence not *in situ*, and one of these, that found in House 6, *G*, was so small as to raise doubts whether or not it should be classed with the others. Another common factor is that they are all made of a stone locally called 'bastard granite',[2] a type much softer than the coarse porphyritic granite, which also occurs locally but not at Chysauster itself. As the list given below shows, they vary considerably in size and to some extent in shape. The majority are round but a few are oval.

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[1] Borlase, *Age of Saints* (Truro, 1893), p. 53. This reference the writer owes to Mr. S. A. Opie.

[2] Lt.-Col. F. C. Hirst has, however, found similar basins of other types of granite associated with analogous sites in Zennor parish.

Details of Stone Basins at Chysauster

House 3, Room *B*. 10½ in. long, 9 in. wide, 3 in. deep. Stone *in situ*. Cavity partly ground smooth and partly pitted by pounding.
  Room *C*. 7 in. long, 7 in. wide, 2 in. deep. Stone not *in situ*. Cavity pitted by pounding.
House 4, Room *C*. 8 in. long, 8 in. wide, 1¾ in. deep. Stone perhaps not *in situ*. Cavity ground smooth.
House 5, Room *B*. 6 in. long, 6 in. wide, 2 in. deep. Stone *in situ*. Cavity circular with a flat bottom 3 in. in diameter; very smooth and looks as though it might have been made with a metal tool.
House 6, Room *E*. 10 in. long, 10 in. wide, 4½ in. deep. Stone not *in situ* (?). Cavity pitted by pounding.
  Room *G*. 6 in. long, 5½ in. wide, 1½ in. deep. Stone very small and not *in situ*. Cavity pitted by pounding and with a rather flat bottom 5 in. in diameter.
House 7, Room *B*. 8 in. long, 6 in. wide, 3 in. deep. Stone *in situ*. Cavity ground smooth.

At first the writer believed that these basins were to crush tin ore, but there are too many objections to that view. Stones with somewhat similar cavities, but rather larger and deeper, were used in Cornwall in comparatively recent times to crush ore by hand, but the surviving examples are in a considerably harder granite. Indeed the 'bastard granite' of which the basins at Chysauster are made is much too soft for this purpose. Also some of the basins are ground smooth inside, a feature quite impossible in a stone tin crusher, and one (in House 5, *B*) has been carefully cut out and left with a flat bottom.

Another possibility is that they were querns, but they are utterly unlike the usual primitive examples found in Great Britain, which are generally either saddle or rotary querns. There are to be sure in West Cornwall some stone basins like those at Chysauster but not positively dated. They are ground smooth inside and look as though they had been used as querns, but they again are of harder granite. Some of these belong to Lt.-Col. F. C. Hirst of Zennor, to whom the writer is grateful for many useful suggestions. Furthermore, most of the basins at Chysauster are much too small to serve as querns, and although some have been ground smooth on the inside, the majority are pitted by being pounded with some hard instrument. This would not only be an unsatisfactory way to grind grain, but would have filled the flour with small particles of the soft granite of which the basins are made.

It would seem then that size, shape, and type of interior surface, being so variable, are not clues to the use of the basins, and one must return to the fact

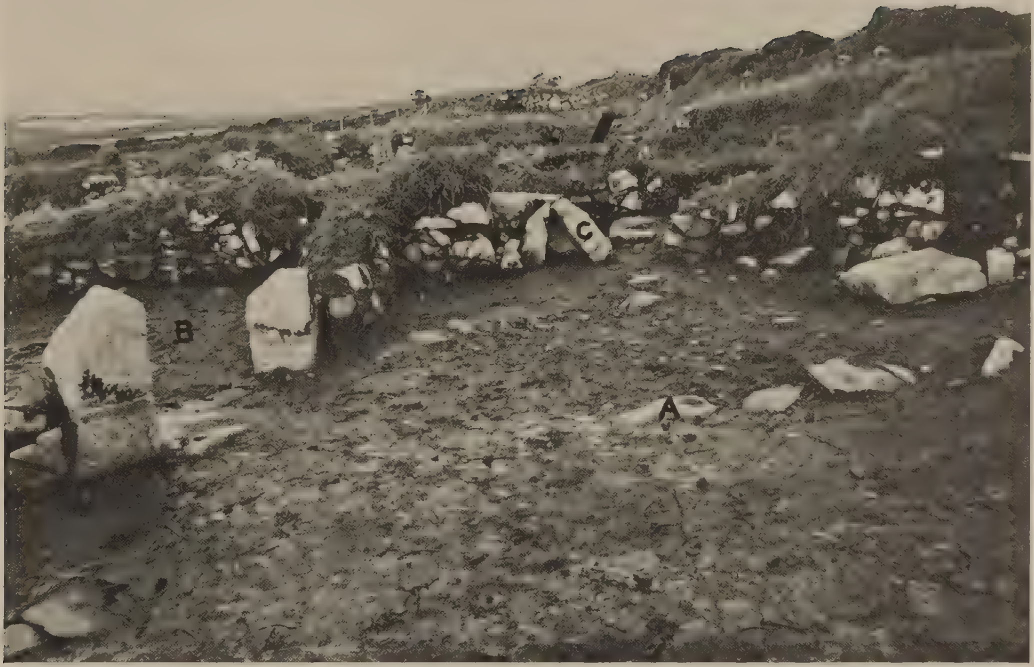

Photo. Gibson & Sons, Penzance

1. House 5, with original floor-level restored. Courtyard (A); at left, Round Room (B); in background, collapsed entrance to Long Room (C)

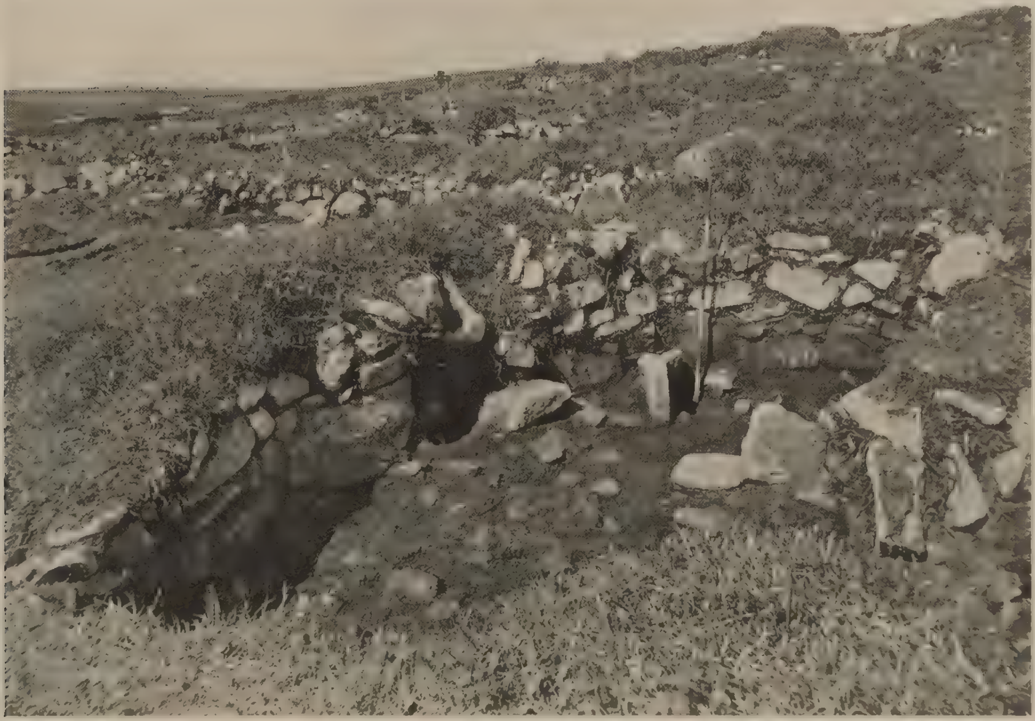

Photo. Gibson & Sons, Penzance

2. House 5, Subsidiary hut (D); the pole is standing in the hearth

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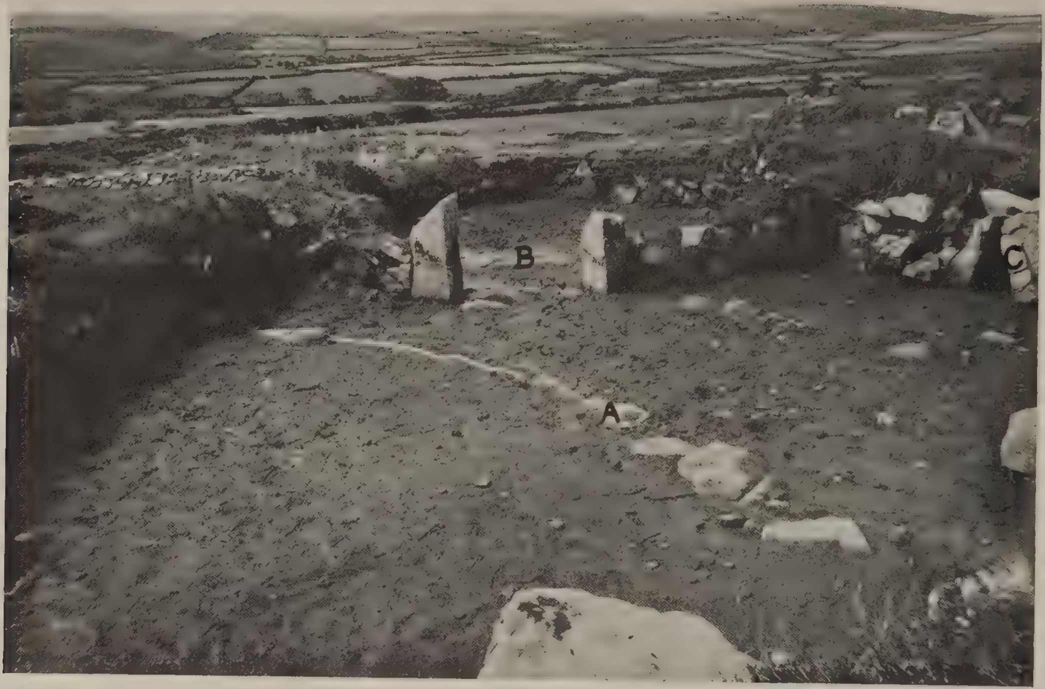
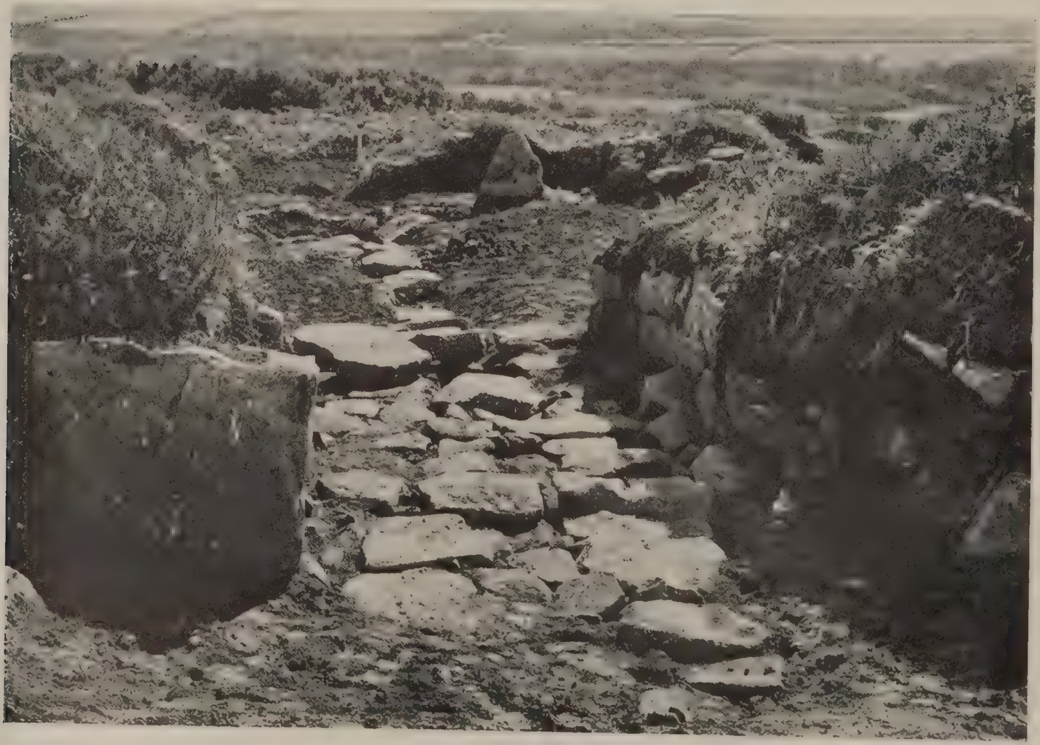


Photo. Gibson & Sons, Penzance

1. House 5, with original floor-level restored. Courtyard (A) in foreground (stones and white line marks drain) Round Room (B) in background; collapsed entrance to Long Room (C) at extreme right



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2. House 7, Open entrance (A 1), looking into court

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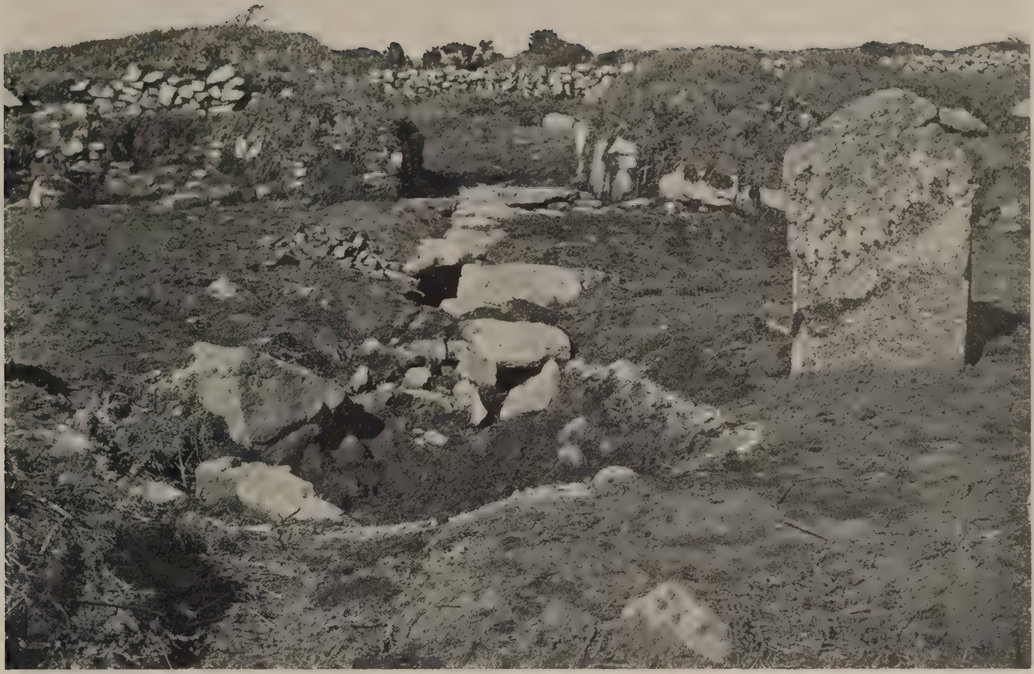

Photo. Gibson & Sons, Penzance

1. House 7, Open entrance (A 1) Court, Drain, and Reservoir

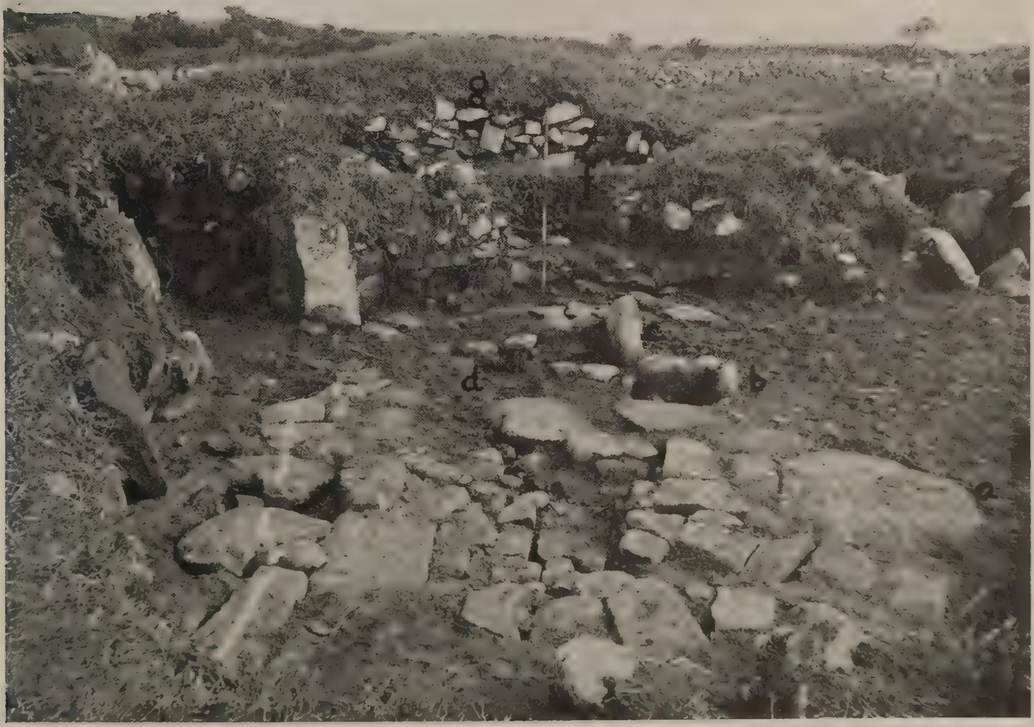

Photo. Gibson & Sons, Penzance

2. House 7, Section B. *a*, stone with basin ; *b. c*, hearths ; *d*, pit in rab ; *e*, bench ; *f*, shelf around Round Room *g*, 'Parapet' ; white line on left, drain ; left background, niche

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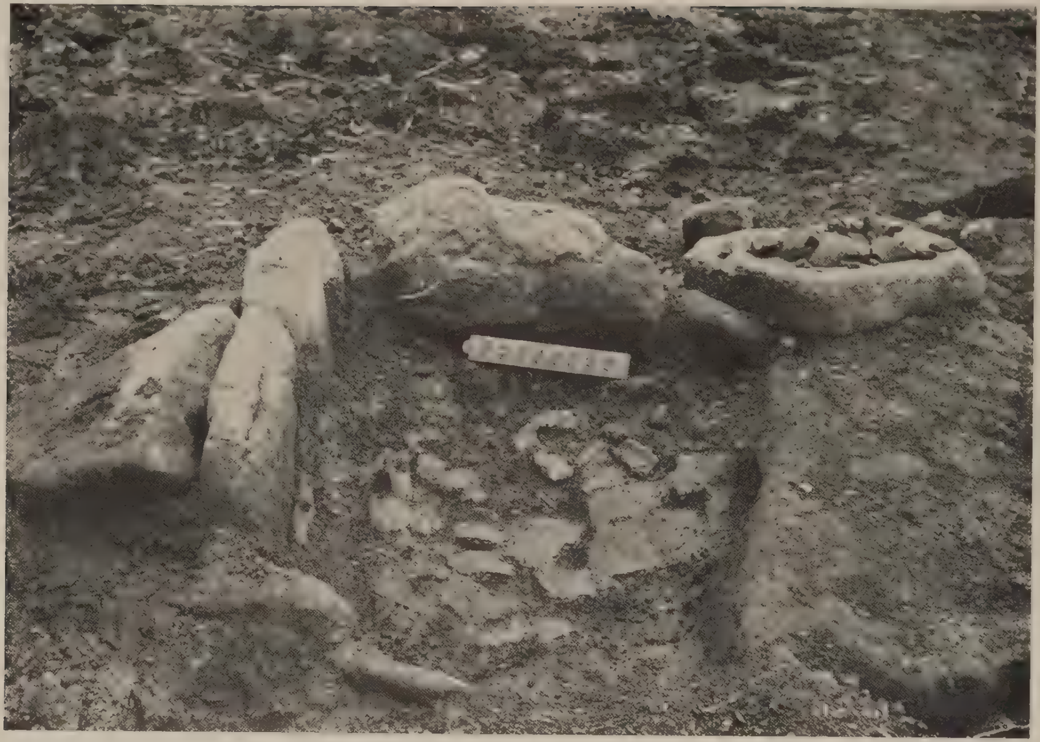

Photo. Gibson & Sons, Penzance

1. House 7, Hearth *b*, with lower stratum of sherds

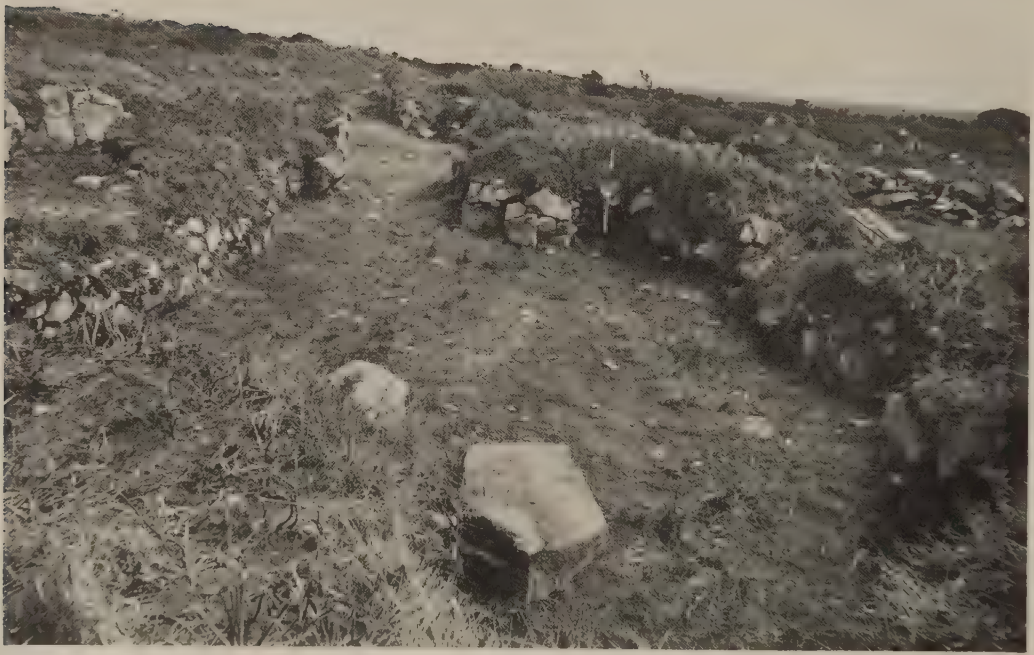

Photo. Gibson & Sons, Penzance

2. House 3, Courtyard (A)

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that they are generally associated with the large room of the house opposite the main entrance. The three certainly *in situ* have been found in the presence of the writer, and two of them formed part of the paving a little way inside the door of this room. The third one, in House 7, *B*, probably did so as well. The doubt concerning the relative position of this basin is due to the fact that the entrance to the room in which it lies is destroyed. The basin itself was certainly *in situ* in the large room opposite the usual entrance of the house. Hence, the most likely explanation which occurs to the writer is that these basins were the sockets for the main roof poles of these large rooms. At least they are in big flat blocks that could well take a heavy weight without cracking or sinking into the ground. The fact that they are near the door could be accounted for by supposing that it was desirable to have the roof higher at that spot to facilitate entrance. This and the row of large upright stones in House 7 are the only new contributions to the problem how the houses of Chysauster were roofed. No post-holes have ever been found, and the only fairly convincing evidence of corbelling is in the little cell *C* in House 6.

It is now possible to say something about the history of Chysauster in so far as it has been revealed by the finds up to the present. House 7, which has provided both the earlier and later limit of date, was built in the first or second centuries B.C., and possibly earlier, and it was still occupied in the second and probably even in the late third century A.D.[1] There is no positive indication, however, that Houses 3 and 5 are older than the first century B.C. or A.D., and 5 does not seem to have been lived in later than the second century. House 3 seems to have been in use for a very brief period only, for, since it produced none of the imitation Roman pottery plentiful in 3 and 5, it would seem to have been abandoned no later than the first century A.D. and before these forms became fashionable at Chysauster. How or why the life of the village came to an end is not known, but there is no sign of hasty abandonment or burning, and it seems most likely that at least the inhabitants of Houses 3, 5, and 7 departed at their leisure, leaving behind only what was not worth carrying away.

The rather complicated plan repeated in each house suggests that each room had its own special use. What these uses were, however, the finds do not tell us, and any generalized theory would be a mere guess. Another interesting matter is the question how many people occupied a Chysauster house.

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[1] In Mr. Radford's opinion, however, the absence of pottery which he would assign to the first century B.C. (see p. 266) would make the few sherds that are according to his view earlier still mere strays. Mr. Radford suggests that they do not date this house, but might be evidence of still earlier occupation upon its site. He believes that none of the excavated houses on this site was built before the first century A.D.

The first impulse is to say that such large dwellings must have been communal, and no doubt they were in some sense, though how large the community was there is no means of knowing. It would seem possible, at least, that inasmuch as each house follows much the same plan, each was lived in by one social unit.

How these people obtained a living is another question as yet not fully answered. It may be, however, that at least House 7, and possibly some of the others as well, was built before the great period of the pre-Roman tin trade ending in the middle of the first century B.C.,[1] and it may then possibly have been a settlement of tin streamers. The only positive evidence, however, is the tiny fragment of tin-glazed pottery found with Iron Age sherds in 1928 in House 3. The pottery shows plainly, nevertheless, that all the excavated houses with the possible exception of House 3 continued to be lived in for some time after, and indeed the single sherd perhaps of late third-century date from House 7 may indicate that that dwelling was still in use during the period between 250 and 350 A.D. when the merchants of Roman Britain interested themselves in Cornish tin.[2] The metallic tin found by W. C. Borlase in House 6 probably belongs to this later period.

The little terraced gardens and the slightly lynchetted banks further up the hill, however, point to agriculture, though on no very grand scale. Still it took a considerable number of people to build and occupy the eight remaining houses of the village, and one can scarcely doubt that they were in some degree herdsmen, for West Cornwall is a country much better suited to raising cattle than to growing grain. The large courtyards suggest places into which cattle might have been driven in time of danger, and the broad shallow alcove along one side of each court could well have been a stable. Still not a single scrap of bone has ever been found in the same stratum as the artifacts, and absolutely no midden debris has come to light anywhere. This may be accounted for, however, by the extremely acid nature of the soil.

As for political arrangements, this village, like several others of much the same sort in West Cornwall, may have been occupied by the subjects of the chief who lived in the hill fort that dominated them, in this case Castle-an-Dinas. The same arrangement occurs at Chûn Castle which has three subsidiary villages below it, and also at Caer Brane in Sancreed parish not far away which dominates two villages, one of which at Carn Euny has a subterranean *fogou* much better preserved than that at Chysauster.[3]

Some of these villages are composed in part at least of units resembling more or less closely those of Chysauster, though in their unexcavated state it is difficult to obtain but a hint of their architectural characteristics. Another village with a *fogou*, but not dominated by a fort, existed at one time at Higher Bodinar (fig. 12) in the parish of Sancreed, and one house remarkably like those at Chysauster survived until recent years. It had a courtyard around which were built in the thickness of the walls three long narrow rooms like room *C* in House 5. They all opened upon the central court as did another much larger oval room.[1] In the parish of Zennor very near Chysauster Lt.-Col. F. C. Hirst has noticed several other rather small houses of the same general type at Bosporthennis, Bosigran, Treen, Porthmeor, and at the head of

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[1] H. O'Neill Hencken, *op. cit.*, p. 174.

[2] *Ibid.*, p. 199.

[3] *Ibid.*, pp. 132–43.

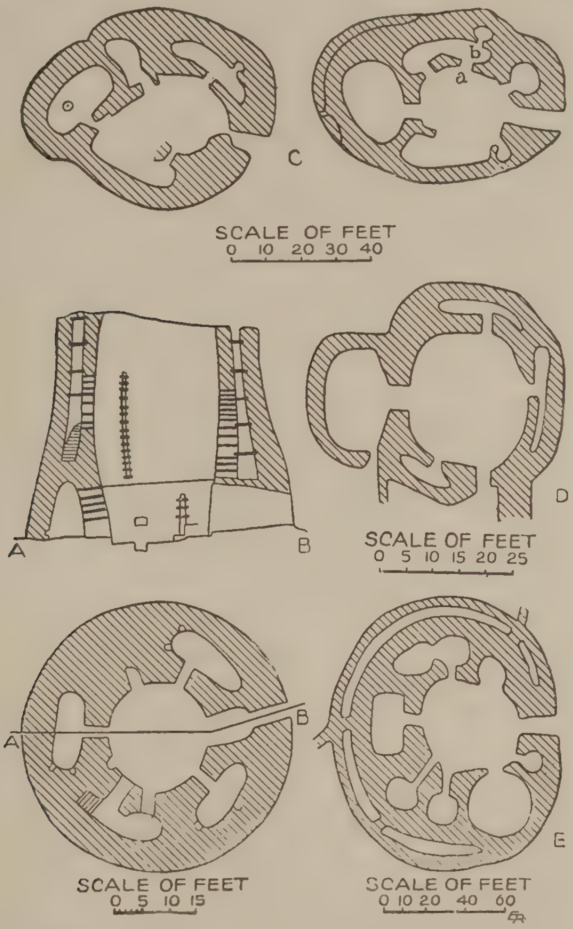

Fig. 12. A, B, broch of Mousa, Shetland; C, Houses 4 and 6, Chysauster; D, Bodinar, Cornwall; E, Llanllechid, Carnarvonshire.
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[1] *Ibid.*, pp. 138–9 and p. 152; fig. 44 D.

the Pennance Valley, and he has taken the writer to see most of them. The structures at Bosporthennis do not include the well-known beehive hut resembling an Irish cloghán, but there are others sadly dilapidated and overgrown near it.

Finally, there arises the question of the relationships of this primitive but peculiar architecture, and it is of interest to find that stone-built dwellings with courtyard exist elsewhere in Great Britain. At Llanllechid in Carnarvonshire there is a stone courtyard house (fig. 12) considerably larger than the Cornish ones, but obviously analogous in plan.[1] Mr. W. J. Hemp, F.S.A., has informed the writer that somewhat similar houses are numerous on both sides of the Menai Strait and along the coast of Merioneth, and that they are frequently associated with vast systems of terraced fields, not apparently lynchets, but resembling more closely the terraced gardens of Chysauster. The age of these Welsh buildings is unknown, but dwellings of similar construction though of different plan in the great Welsh fortress of Tre'r Ceiri are contemporary with the Roman occupation.[2]

If one moves farther north along the western coast of Britain, the Scottish brochs are encountered, though these had many stories while the Cornish and Welsh houses had but one. The brochs (fig. 12), however, were built in two distinct parts, the ground floor which closely resembles a southern courtyard house, and the superstructure with its stairway and circular galleries which is entirely different in plan and construction.[3] Evidently the Chysauster type of house and the brochs were closely allied, but the people in Scotland added to the fundamental ground plan an enormously high superstructure. The natural result of this is that the walls of a broch are much thicker in proportion to the size of rooms on the ground floor than are the walls of the Cornish and Welsh houses. The brochs, so far as anything is known about their date, were occupied during the Roman invasion of Scotland, but must previously have had a period of development of some length. At least it is difficult to imagine so complex a form of building springing into existence full blown. Scotland apart from the brochs possesses subterranean dwellings analogous to the Cornish *fogous* and the Irish souterrains, but some of these are constructed upon a plan resembling the courtyard houses with a central space around which are built other smaller compartments. These seem also to be about contemporary with the brochs.[4]

All the buildings in the British Isles that have been discussed up to now have belonged to what might be called the courtyard type, and in so far as any date can be assigned to them, it is to the Roman period itself and possibly to the latter part of the pre-Roman Iron Age. The beginnings of this type of architecture are at any rate remote enough from Roman influence to preclude the possibility that such structures were in any way the direct result of the influence of Roman architecture in Britain upon the semi-civilized peoples of the island. It might be supposed that possibly the idea first took root among those tin-trading folk of Penwith that Diodorus Siculus describes (v, 22) as being more civilized than the other natives of the island because they had contact with foreign merchants who were in turn in touch with the distant Mediterranean world; but Diodorus seems to have derived his information from the explorer Pytheas of the late fourth century B.C.,[1] and the Chysauster type of house cannot be proved to be so early. It is possible, however, that the village was occupied during the latter part of the great prehistoric period of Cornish tin-working which reached its climax in the Iron Age.[2]

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[1] *Archaeologia Cambrensis*, 3rd Series, vol. xii, pp. 215–28, 4th Series, vol. vi, p. 220 f.

[2] R. E. M. Wheeler, *Prehistoric and Roman Wales* (Oxford, 1925), pp. 260–2.

[3] A. O. Curle, *Antiquity*, vol. i, p. 299; J. Anderson, *Scotland: Iron Age* (Edinburgh, 1883), p. 174 f.; *Proceedings of the Royal Society of Edinburgh*, vol. l, p. 51 f.

[4] *Archaeologia*, vol. lxxvii, p. 103.

Until recently little was known that could have been supposed to represent a previous stage in the development of this type of architecture, and the only earlier examples of building in stone other than mere groups of 'hut circles', which are frequent enough in west Cornwall,[3] were the megalithic monuments that are probably older by two millennia. The excavations by H.M. Office of Works under the direction of Professor V. Gordon Childe at Skara Brae in Orkney have, however, shed further light upon the question.[4] Here was found a village consisting of eleven buildings, all fairly elaborate structures of dry masonry huddled closely along narrow lanes. Though the houses were much smaller than those of Chysauster, they consisted essentially of a large chamber with small cells leading off from it instead of a court surrounded by rooms, and hearths, drains and corbelling were used. There was also a curious equipment of stone furniture quite unlike anything at Chysauster. The artifacts consisted of tools and ornaments of stone and bone, and pottery of Bronze Age type. Its culture was certainly quite different from that of the neighbouring Iron Age brochs and earth houses, though all three types of building share some architectural devices. Certain resemblances, architectural and otherwise, exist between the culture of Skara Brae and that of the Orkney megaliths, but they are insufficient to declare it a settlement of megalith builders. In fact the village may be in some sense intermediate, and represent a link between the structures of the two widely separated periods.

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[1] H. O'Neill Hencken, *op. cit.*, p. 170.

[2] *Ibid.*, p. 164 f.

[3] A local evolution toward the courtyard house seems to be observable on some of these sites, but no very satisfactory chronology has yet been established for them. Also, unless one is prepared to believe that the courtyard type originated in Cornwall, the history of this wide-spread house plan elsewhere must be considered.

[4] V. Gordon Childe, *Skara Brae* (London, 1931).

The date of Skara Brae has been to some degree confirmed by an excavation recently carried out in the Shetland Islands by H.M. Office of Works under the direction of Mr. Alexander Curle. Near the structures secondary to the Jarlshof broch at Sumburgh Head[1] was found a house (fig. 13) also much smaller

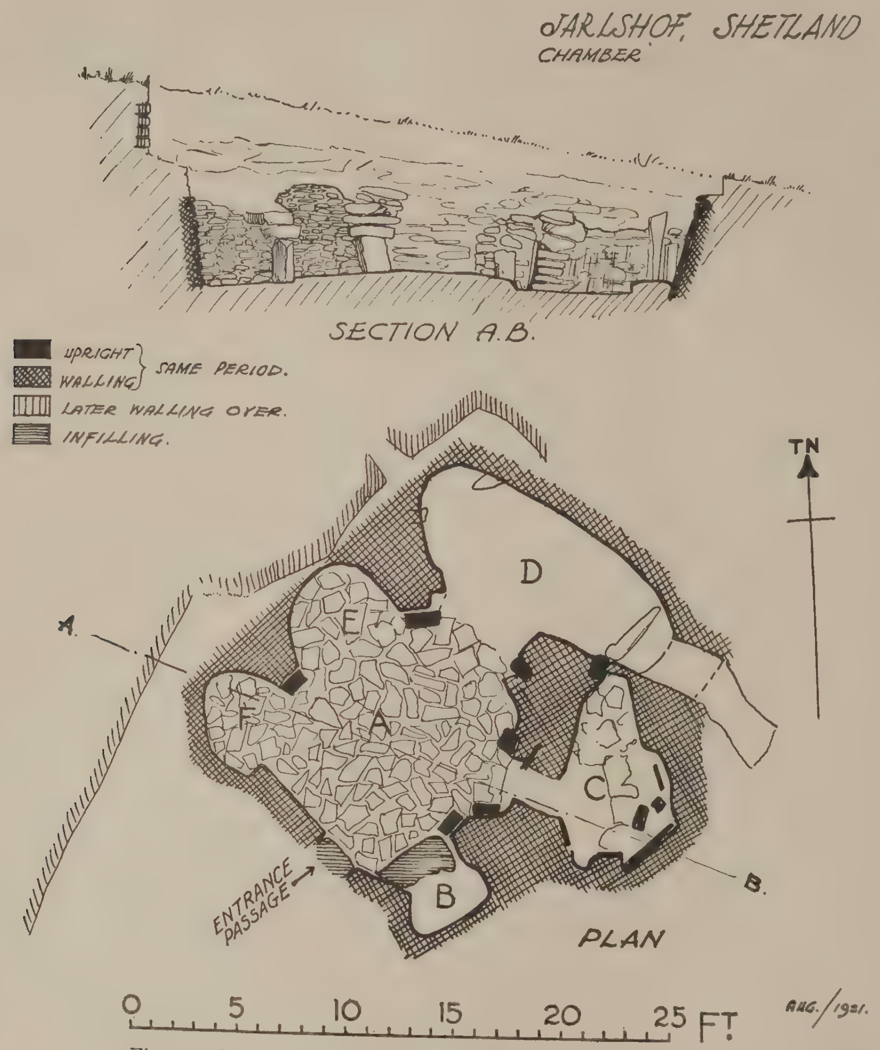

Fig. 13. House at Jarlshof, Shetland. After A. O. Curle.

By permission of the Editor of 'Antiquity'.

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[1] A. O. Curle, *Proceedings of the Society of Antiquaries of Scotland*, vol. lxvi, p. 113 ff.

than those at Chysauster and sunk below the ground in a manner reminiscent of the Scottish subterranean dwellings already referred to. It consisted, however, of a central space with a large chamber opposite the entrance, a large one and a small one on the right of the entrance as one enters, and two alcoves on the left. This arrangement at least vaguely recalls the Chysauster type of plan. In this dwelling were found stone and bone tools as at Skara Brae, but also clay moulds for casting bronzes, including parts of moulds for swords and socketed axes. This indicates that the structure belongs within the Bronze Age complex and implies that the same is true of Skara Brae. Is this another link in a continuous British tradition of stone architecture beginning with the megalithic monuments two millennia before Christ, and still showing its influence in the early Christian architecture of the northern and western parts of the British Isles? The early Christian buildings are of course commonest in Ireland where great numbers of other primitive stone dwellings are found, but none seems to have been noticed there directly comparable to Chysauster, and very little is known of their dates. In time it may be possible, however, to connect them with the same chain of architectural development. It may be said, however, that the subterranean structures of the type of the Cornish *fogous* are probably Irish in origin inasmuch as they are far more numerous in Ireland than anywhere else.

Finally, the general cultural affinities of Chysauster must be considered. In the first place much of the pottery, whatever its date, is in the La Tène tradition, which indicates that the village was pervaded by the influence of the latter part of the continental Iron Age. This, as well as a general consideration of the archaeology of Cornwall at this time, allows us to consider the inhabitants in some degree Celtic. There are also rather barbarized infiltrations of Roman civilization, but these are ceramic rather than architectural. Finally, it must be admitted that the buildings are neither Roman nor La Tène, but are evidently a manifestation of an independent tradition common to the northern and western parts of the British Isles. This applies not only to the houses but also to the *fogou*, which is a definitely Irish type. Even Castle-an-Dinas, the fort that commands the village, is of a kind more at home in Ireland than England. Though much dilapidated, it resembles Chûn Castle, which is closely paralleled by the Irish stone forts of which the most famous are those on the Aran Islands. Since there is much evidence of Irish influence in West Cornwall in post-Roman times, it is not surprising to find some traces of it still earlier.[1]

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[1] H. O'Neill Hencken, *op. cit.*, pp. 215–17, 226, 230–1.

Acknowledgement

In closing I wish gratefully to acknowledge my especial gratitude to Lt.-Colonel F. C. Hirst of Zennor for his invaluable assistance in recording the progress of the excavation, for the wide and thorough knowledge of the district which he has at all times placed at my disposal, for reading this paper on my behalf before the Society of Antiquaries, and finally for readily undertaking the arduous task of dealing with the proofs.

XIII.—*Notes on the Armour worn in Spain from the tenth to the fifteenth century.—By* JAMES G. MANN, *Esq., F.S.A.*

Read 7th April 1932

THE Royal Armoury at Madrid is justly famous. But it is predominantly a Renaissance armoury, and for range and variety must yield the first place in Europe to the other Habsburg armoury at Vienna. If one wishes to trace the history of defensive armour in Spain prior to the sixteenth century one must look farther afield. Actual specimens of medieval armour are to-day as rare in Spain as in other countries, and knowledge of the earlier periods must, as elsewhere, be supplemented by the evidence of contemporary sculpture, painting, and literature.

The output of the great armour-producing centres of Germany and Italy has hitherto tended to monopolize attention. But the work of Spanish craftsmen, and the influence of Spanish taste on foreign craftsmen, deserve notice for the special features which they evolved, and the following pages are intended to distinguish these rather than to provide a general history of medieval armament in Spain.

The history of Spain in the Middle Ages is mainly a record of hard fighting. She formed the south-western extremity of the known world, and isolated behind the barrier of the Pyrenees waged for five hundred years an unremitting struggle against the Moors. In view of its artistic repercussions, it should be remembered that the Moorish invasion of Spain in the eighth century was part of the great wave of Islamic conquest which spread rapidly along the Mediterranean coast from Asia to Tangier, and the Ommayid dynasty which established itself at Cordova was descended from the Ommayid Caliphs of Damascus. The Moors brought with them their special crafts, among them their skill in the decoration of ceramics, metals, and leather work, and established themselves permanently in the Peninsula. The Christian reaction began to gather force in the eleventh century under St. Alfonso and the Cid, until in 1212 the combined forces of the kings of Castile, Aragon, and Navarre won the great victory of Las Navas de Tolosa. St. Ferdinand retook Cordova in 1236, Valencia two years later, and Seville in 1248. Moorish rule was now confined to the small kingdom of Granada, but many of the craftsmen of the reconquered towns were absorbed under the Spanish régime. The Christian states which grew up as the dominion of the Moors receded, were soon fighting among themselves. John of Gaunt, the Black Prince, and James the good Earl of Douglas, on his way to Jerusalem with the heart of Bruce, were among the many foreigners who, for gain or adventure, were drawn into an arena bounded by the sea and the Pyrenees.

The same stages in the evolution of defensive armour, namely from mail to plate, with the fourteenth century as the period of transition, are to be found in Spain as in the rest of Europe. But the changes were slower, and, as in Italy, the exigencies of climate delayed the introduction of full plate or 'white armour'. The light horsemen armed with lance and leather shield *a la gineta* had learned their tactics from the Moors, and the Spanish nobility did not whole-heartedly adopt plate armour until attracted by the superb productions of Milan in the middle of the fifteenth century.

It is well known how Spanish art has at different periods been influenced by that of other countries, yet Spanish taste has always reserved for itself the right of selection and adaptation, and has been able to place its characteristic imprint upon the result. In the earlier centuries under review, and especially in Aragon and Catalonia, these influences came from France. But national styles are not so easily detected when military equipment consisted of a simple shirt of mail, a helmet, and a shield, hence the early Visigothic manuscripts show warriors little different in appearance from the rest of Europe. Among the several manuscript copies of St. Beato de Liebana's 'Commentaries on the Apocalypse' there is one in the library of the University of Valladolid, painted by one Oveco in the monastery of Valcavado for Abbot Sempronio in A.D. 970.[1] His illustration of the defence of Jerusalem shows warriors armed with round shields, heavy swords with trilobate pommels, spears with cross-bars, but no body armour.

A later manuscript of the same Commentaries, written at the end of the eleventh century and now in the British Museum, provides a Spanish parallel to the Bayeux tapestry (pl. LXXVII, 3). The warriors wear the familiar type of conical helmet with nasal, often built up in segments on a framework, known in German as a *Spangenhelm*, of which the majority of existing specimens have been found in Central and Eastern Europe, thereby illustrating its universality. The long hauberk of mail (*loriga*), here represented by blue net-work dotted with white spots, is worn over an even longer tunic. The hauberks seem to be edged with brass links, for the artist has painted the borders yellow; but as one of the horses is mauve with red spots it may not be safe to take him too literally. As in the Bayeux tapestry, so in the Spanish manuscripts of these times, both round and kite-shaped shields are shown. In the Bayeux tapestry the round shields are only carried by the Saxons. Here the round shields are much smaller in diameter. Both circular and kite-shaped shields are represented in the Cartulary of Bishop D. Palayo, 1126–9, in the library of Oviedo Cathedral, and another MS. of St. Beato de Liebana, formerly in the monastery of Las Huelgas and now in the library of Mr. Pierpont Morgan, dating from the end of the twelfth or early thirteenth century,[1] gives a spirited rendering of the siege of Jerusalem with warriors with round and kite-shaped shields, wearing conical helmets over mail coifs, hauberks and chausses, while King Nebuchadnessor's guards wear their white tunics over their hauberks, the first instance we have encountered in Spain of the surcoat. Two leaves from a twelfth-century Apocalypse in the Museo Arqueologico at Madrid show mail-clad warriors with kite-shaped shields and nasals protecting the face, which in one case extends to a primitive visor (fig. 1), which may represent the mail face-covering referred to in contemporary Spanish texts as the *ventana*.[2]

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[1] J. Dominguez-Bordona, *Spanish Illumination*, 1930, pl. 18.

The manuscripts are corroborated by the sculpture of the period, and similar mail ventails drawn up to the eyes are shown on the carvings of the sleeping guard at S. Domingo de Silos.[3] Warriors in coifs and long uncovered hauberks are to be seen on the sepulchre of SS. Vincent, Sabina, and Cristela at Avila of the second half of the eleventh century. The Old Cathedral of Salamanca was built by the Cid's confessor, Fray Geronimo, a Frenchman, who became bishop of Valencia in 1098, and one of the capitals shows a mail-clad knight with a conical helmet and kite-shaped shield who charges with his lance another mailed horseman carrying a round shield, and wielding a sword. A capital (pl. LXXVII, 1) in the so-called palace of the Duke of Granada at Estella in Navarre shows horsemen with round-topped kite-shaped shields, without helmets, but wearing mail coifs. Another capital (pl. LXXVII, 2), apparently of the later twelfth century, in the same place shows two warriors hewing at each other on foot, wearing tall helmets with nasals, and carrying long kite-shaped shields straight at the top with incipient heraldic charges. A similar shield is carried by the angel on the great sculptural doorway of St. Michael's

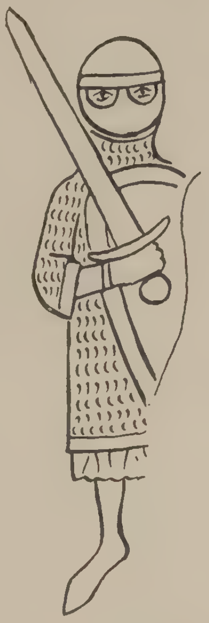

Fig. 1. Illustration to St. Beato de Liebana's Apocalypse, manuscript of the twelfth century in the Archaeological Museum, Madrid.

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[1] Dominguez-Bordona, *op. cit.*, pl. 68.

[2] For the contemporary terminology of Spanish arms and armour, see Wilhelm Giese: *Waffen nach der Spanischen Literatur des 12 und 13 Jahrhunderts*, in vol. vi of *Mitteilungen und Abhandlungen aus dem Gebiet der romanischen Philologie*, Hamburg, 1925, and much information is to be found in E. Leguina's *Glosario de Voces de Armeria*, Madrid, 1912.

[3] Kingsley-Porter, *Pilgrimage Churches*, 670.

church at Estella, and the change from the rounded to the straight-topped shields appears to have taken place about this time. Among the MSS. in the Escurial is one of the *cantigas* of Alfonso the Wise executed towards the end of the thirteenth century of which a page is here illustrated on pl. LXXVIII. Great helms and open war hats are worn with mail and rich heraldic surcoats. The horses also wear mail trappers and large chamfrons of leather or iron.

Perhaps we hardly realize our distinction but Spain must be second only to this country in the number of its monumental effigies sculptured in the round. Though the churches of Germany are very rich in monuments, they are usually carved in relief; the Revolution left France with only a meagre total of survivors; and effigies in Italy are few in number prior to the Renaissance. But the province of Catalonia, which enjoyed great prosperity in the fourteenth century, has many military effigies, and, except for those published by Carderera in the middle of the last century, they are practically unknown.

One can distinguish two types. The first is represented here by the monument to a member of the Centellas family at Talamanca (pl. LXXIX, 1). The figure lies stiffly upon his back, with his hands crossed over his sword. He still wears the long mail hauberk (*loriga*) and coif (*almofar*) without a surcoat, which by now had become universal in the rest of Europe, with an even longer skirted tunic beneath. A very similar figure in pink sandstone is in the courtyard of the monastery of Montserrat dated 1330, and there is a third of one of the Queralt family at Santa Maria del Estany. Here one can see very clearly the plate additions to the legs, but as yet none upon the arms, such as one finds at this date on the English brasses of Sir John Creke and the younger Sir John D'Abernon.

The second type of Catalan effigy of this time shows the mail on the body covered by a sleeveless surcoat, represented here by the tomb of Bernardo de Minoris †1330 in the cloister at Manresa (pl. LXXIX, 2). He wears poleyns and laminated sabatons, and carries a large dagger on his right side. The effigy of one of the Castellbell family at Castellbell shows what must be one of the earliest representations of a kidney dagger, and in this case the feet are protected by scales, not lames, and the poleyns are prominent and ornamented with a star.

The second effigy at Montserrat (pl. LXXIX, 3) is to one of the Cardonas (the shields bear the allusive charges of three thistle-plants for Cardona and pine-cones for Pinos), and is interesting to us for its representation of the so-called banded mail. This convention, while common enough in MSS., is found on three English effigies only, and in the past has occasioned much speculation and controversy among English antiquaries. I hope it is now finally accepted for what it undoubtedly is—no more than one of many conventions for representing the intricate structure of ordinary interlinked mail. Cardona's surcoat is sleeved, the hands are joined in prayer instead of being crossed, and the legs are still clad in mail without plate additions. Another Catalan effigy in 'banded' mail is that of Berenguer de Coll †1334 at Sant Andre de Coll near Gerona. His surcoat is embroidered with his arms and he has rondels on shoulders and elbows, poleyns and greaves.

The figure of Ugo de Cervellon (pl. LXXIX, 4) at Villafranca del Panades, who also died in 1334, is still faithful to mail without any plate additions. Unlike the others he is represented with his shield on his left arm; his surcoat and pillow are embroidered with escutcheons of his arms. There is a very similar effigy at Puig of Rodrigo de Loria.

An unusually well-preserved effigy, believed to have come from a church in Aragon, and very similar to the Catalan effigies that have been described, has been brought to London and at present belongs to the Spanish Art Gallery. It retains its original gesso coating and colouring. The surcoat has wide sleeves and is covered with painted escutcheons within floriated cartouches, and there are smaller escutcheons on a fillet round his mail coif. The hands are crossed over the abdomen, the legs are defended by complete greaves, and jewelled shoes are on his feet. The black scabbard is decorated with a ribbed decoration as on the Villafranca and Puig effigies. In nearly all these effigies one remarks the shortness of the legs, and in this case, though head and trunk are large, the total length is only 5 ft. 2 in. The spurs have long trailing straps, as at Villafranca and Manresa and on the fine heraldic figure of Gilbert de Cruillos at Gerona.

The tombs of Berenguer de Anglesola and of Pedro de Fonoyllet, Vizcondez de Ylla, in the monastery of Pedralbes, which was founded in 1327, show similar features to those already noticed, but the figures have been repainted. An effigy at Rocafort varies in that the mail sleeves stop at the wrists in a wide cuff and are not continued as fingered gloves. The fine tomb at Villafranca del Panades of one of the Castellet family, who died in 1323, shows for the first time separate gauntlets (pl. LXXX, 2).

The Spanish reluctance to employ plate armour is further illustrated by a manuscript in the library of the Escorial of the Chronicle of Troy illuminated by Nicolas Gonzalez in 1350. On folio 84 v knights are shown wearing great helms,[1] some with movable visors, but no plate is visible.

The carving of St. Vilardell and the dragon on the Puerta de San Ibo of Barcelona Cathedral (pl. LXXX, 1) shows a war-hat, *chapel-de-fer* or in Spanish *cabacete*, not unlike the present English headpiece. There are rondels at shoulder and elbow and a strip of plate on the upper arm.[1] The mail hauberk, however, is still worn over the tunic. Vilardell was a local hero who slew a dragon which had been let loose upon the Christians by the Moors. Exulting in his victory he raised his sword aloft, when a trickle of the dragon's poisonous blood ran down upon him and killed him as the punishment of God for his vainglory.

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[1] Bordona, *op. cit.*, pl. 95; and cf. also pls. 100 and 136. There are frequent references in contemporary texts to *Yelmos de Zaragoza* (Giese, *op. cit.*, p. 113).

Similar equipment with bell-cuffed gauntlets is shown on a tomb at Villafranca del Panades of the second half of the century. The wide-brimmed war-hat (fig. 2) grew rapidly in favour in Spain, and one finds numerous examples during the next century.

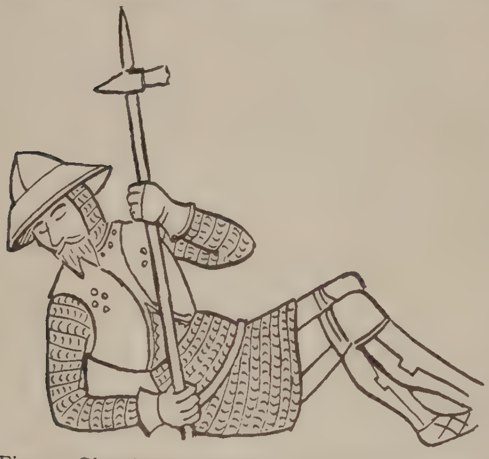

Fig. 2. Sleeping guard from a fourteenth-century polyptych at Abella.

One of the earliest instances (pl. LXXXI, 1) of the full plate arms and the short tight-fitting gipon, which was already common in Northern Europe in the second half of the fourteenth century, is provided by the kneeling figures of King Henry II of Aragon and his son in the large painting, *c.* 1370, of the Virgin and Child attributed to the Master of Tobed, school of Saragossa, which was included in the Exhibition of Spanish Art held at Burlington House in the winter of 1920–1. Their visored bascinets each with crest, mantling and aventail, lie on the ground before them.

An example of the type of bascinet prevalent throughout Christendom at the end of the fourteenth century with pointed skull and with a pivot and hinge for the visor is well shown on an effigy (pl. LXXXI, 3) of the end of the fourteenth century at Villafranca del Panades. Although the legs are encased in cuisses, poleyns (with borders) and greaves of plate, the arms are still left to the protection of mail alone. The absence of a gipon reveals a brigandine of plates worn over the hauberk, and encircled with a rich bawdric. The gauntlets are of theusual bell-cuffed type of the period. There is a similarly equipped effigy, but without the brigandine, at Poblet of Don Bernardo de Anglesola †1384.[2] One of the last to show the deceased wearing bascinet and aventail is the fine effigy at Segorbe, representing Don Gonzalo de Espejo dating from the early years of the fifteenth century. In his case the voluminous aventail has dagged edges like the hauberk. There appears to be a breastplate, but the skirt

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[1] Defences for the limbs consisting of narrow strips of plate sufficient to guard against a sword-cut, and dating from the fifteenth century, are to be seen in the collection of M. Paulhac.

[2] Carderera, pl. XXXIII.

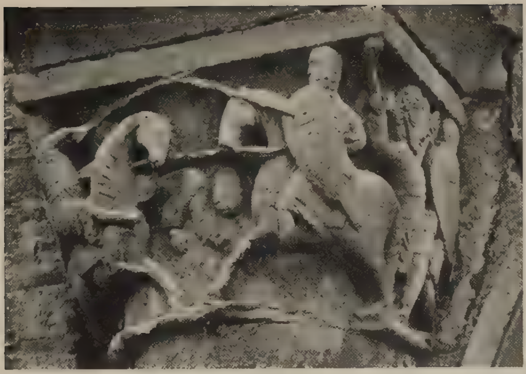


Photo. Arxiu 'Mas'

1. Capital in the Palace of the Duke of Granada at Estella, Navarre, twelfth century, with combat of horsemen

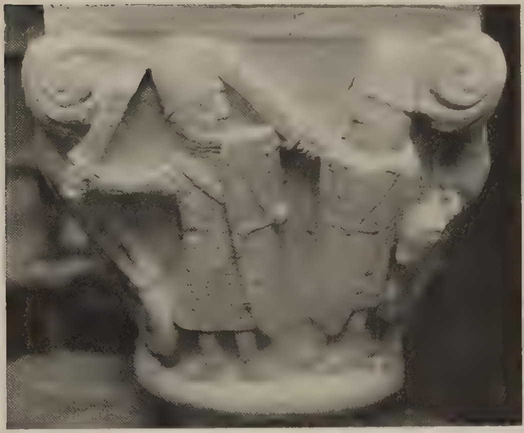
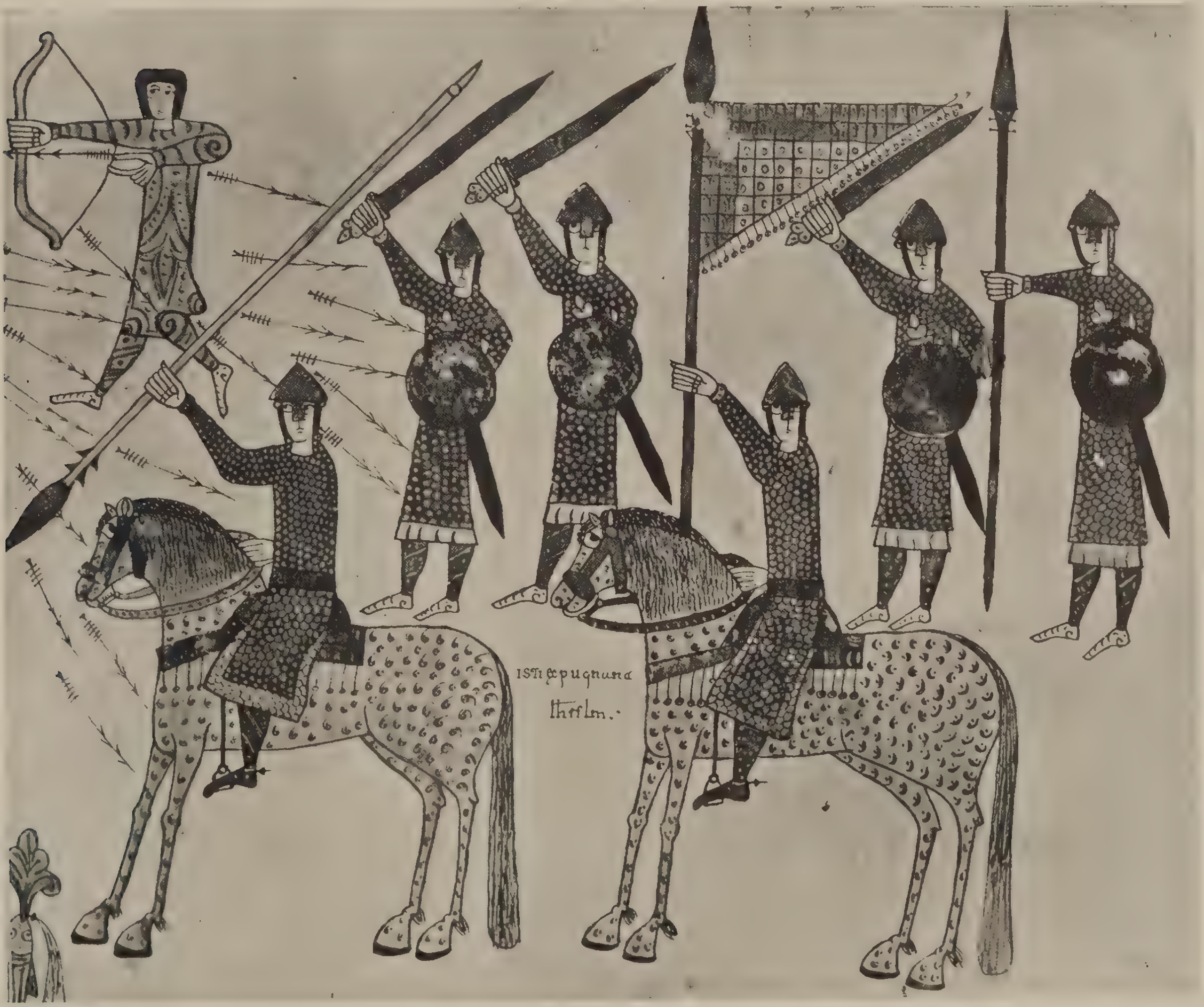


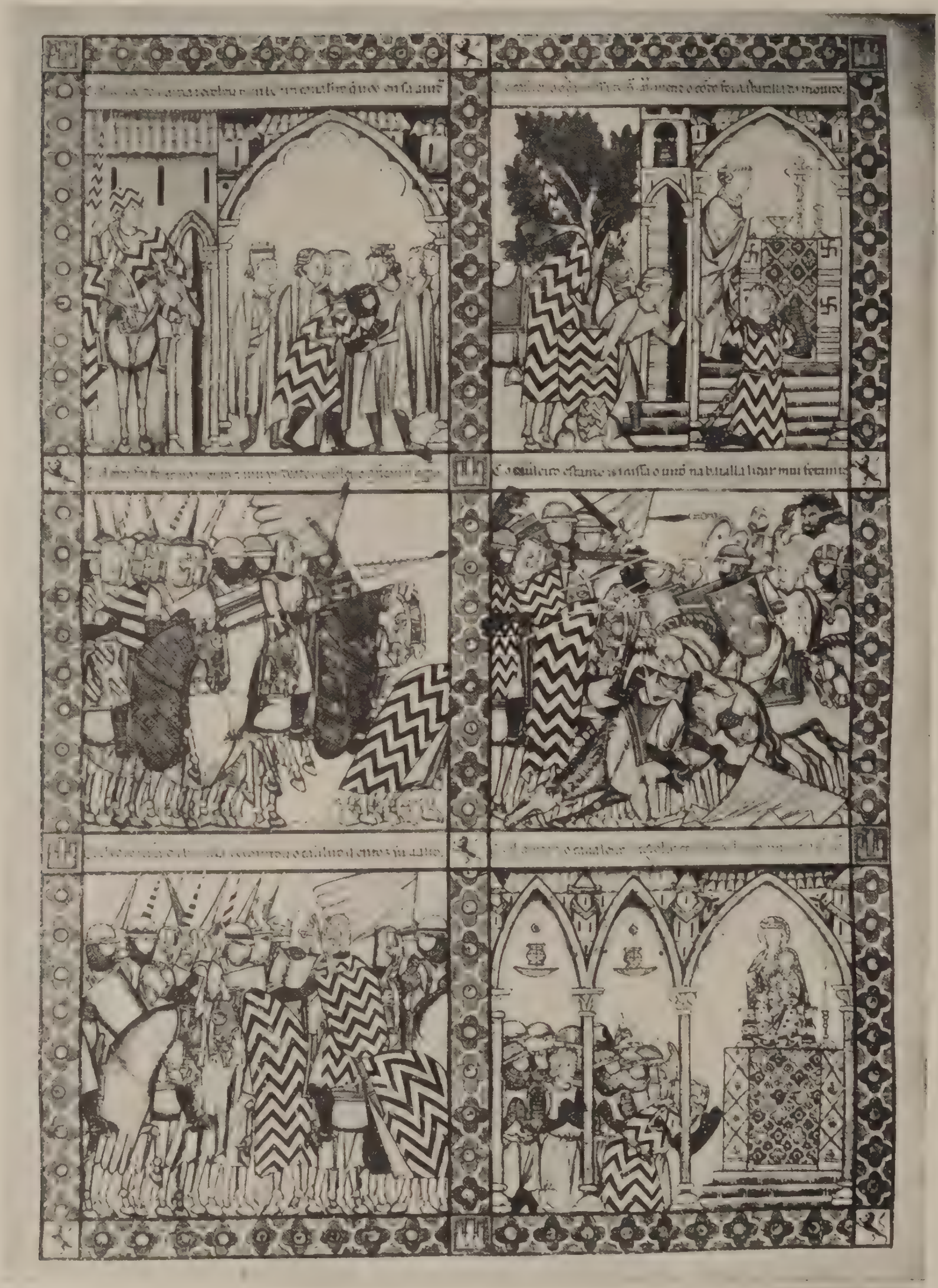
Photo. Arxiu 'Mas'

2. Capital in the Palace of the Duke of Granada at Estella, Navarre, later twelfth century, with warriors fighting on foot



3. Warriors from a MS. of St. Beato de Liebana's Commentaries on the Apocalypse, in the British Museum, completed in 1109

Published by the Society of Antiquaries of London, 1933



Page from the Cantigas of Alfonso the Wise, the story of Count Garcia and the devout knight; late thirteenth century, in the Escurial Library

Published by the Society of Antiquaries of London, 1933

of his hauberk is unconcealed by any gipon; he has fully developed plate vambraces with elbow-cops, which come from under short sleeves of mail covering the upper arm. The legs are encased in plate with sabatons of scales. The hands are crossed over the sword in the usual manner.

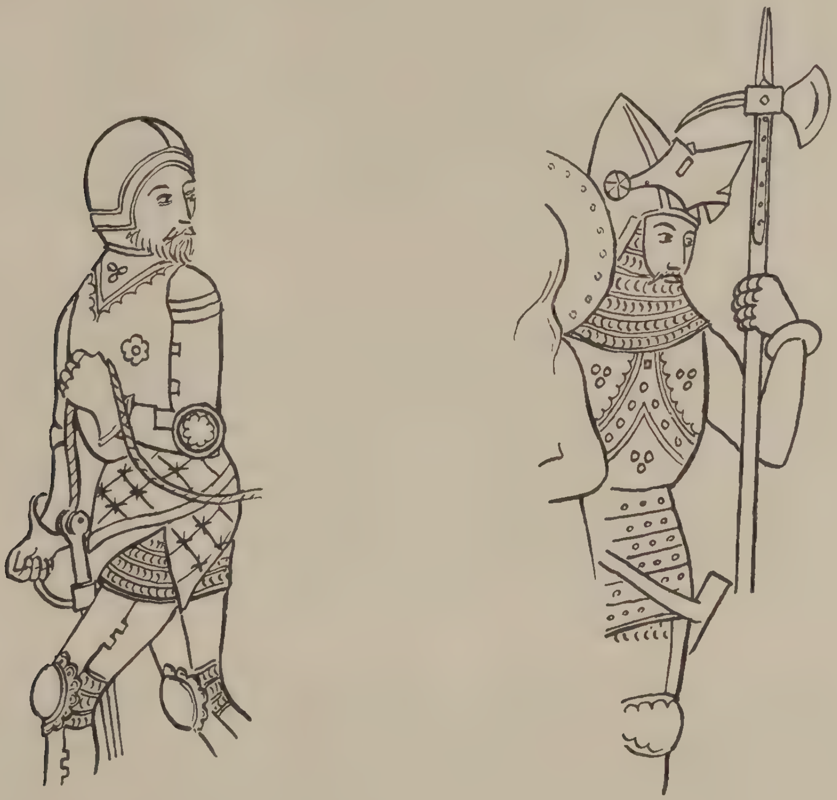


Fig. 3. Guards leading Christ before Pilate, on the door of the Reliquary of Piedra, 1390.

The tombs of Don Alvaro Perez de Guzman †1394 at Seville,[1] and Don Juan Alfonso de Ajofrin at Toledo[2] †1382, show gipons with baggy sleeves as on the statuette of St. George at Dijon, bell-cuffed gauntlets and legs of plate with rich borders. Both are without their helmets, which becomes the usual convention on tombs during the next century. The painted door of the great reliquary of the monastery of Piedra, Saragossa, now in the possession of the Historical Academy at Madrid, was executed in 1390 and shows soldiers leading Christ before Pilate (fig. 3), wearing bascinets (one with snouted visor), and brigandines or 'pairs of plates' covered in textile.

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[1] Carderera, pl. XXV.

[2] *Ibid.*, pl. XXXIV.

There are two pieces of actual armour of this date that have survived. One is the well-known parchment crest of a dragon which belonged to King Martin of Aragon, 1397–1410, now in the Royal Armoury at Madrid (D 11).[1] The other is a bascinet with beautifully formed skull tapering to an apex, and equipped with brass vervelles, which is preserved in the Provincial Museum over the gate at Burgos (fig. 4), and has not hitherto been published. Where it came from I cannot say. The apex is free from the oxidization which has patinated the rest of the surface, which suggests that it has carried a crest as a memorial helmet in a church. Froissart tells how before the battle of Aljubarota in 1388, Henry, King of Castile, ordered Don Pedro Harem to bear his helmet, which was encircled with a coronet of gold and jewels and worth twenty thousand francs. The king had intended to wear it that day, but before Don Pedro could reach him through the press, the battle was joined and very soon the Castilian army was in flight before the forces of Portugal assisted by a body of English archers. Don Pedro was concerned for the safety of the royal helmet and putting it on his own head joined in the flight. The king halted at Santarem, where he mustered the remnants of his army, and there three days later Don Pedro Harem reached him still bearing the precious helmet, which the king's entourage had persuaded him had gone for ever.

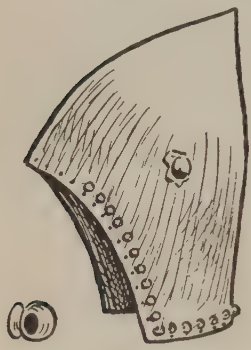
Fig. 4. Bascinet in the Provincial Museum, Burgos, late fourteenth century.

Among the tombs in the cathedral at Gerona is one to Ramon Berenguer II Count of Barcelona, erected at the end of the fourteenth century by order of Pedro III of Catalonia (pl. LXXX, 3). It is remarkable for the high gorget which covers the lower part of the face and the quilted surcoat. This fashion is also shown on an effigy at Poblet[2] of about the same date.

Bascinets with aventails and plated arms are shown in the *retablo* of the banquet of knights and the burial of St. Martin in the Museo Episcopal at Vich. There is an attractive representation of the armour of this date on the ceiling of one of the alcoves in the Sala de la Justicia in the Alhambra, which has been decorated in bright colours with subjects of Romance (pl. LXXXII) painted on leather affixed to boards, but now unfortunately much cracked and defaced. The representations of the human figure show that it must be the work of a Christian artist of the early fifteenth century working for the Moors,

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[1] The actual crest is of parchment, and only the base, which was added for carrying it in processions, is of wood.

[2] Carderera, *op. cit.*, pl. XVII, variously attributed to Ramon Folch †1320 and Rodrigo de Rebolledo †1479.

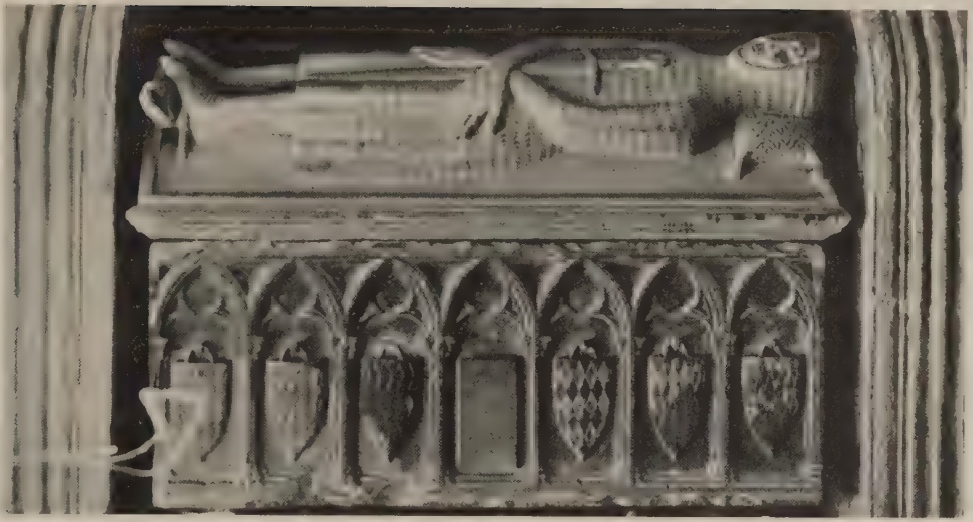

Photo. Arxiu 'Mas'

1. Monument of one of the Centellas family, early fourteenth century, at Talamanca, without surcoat

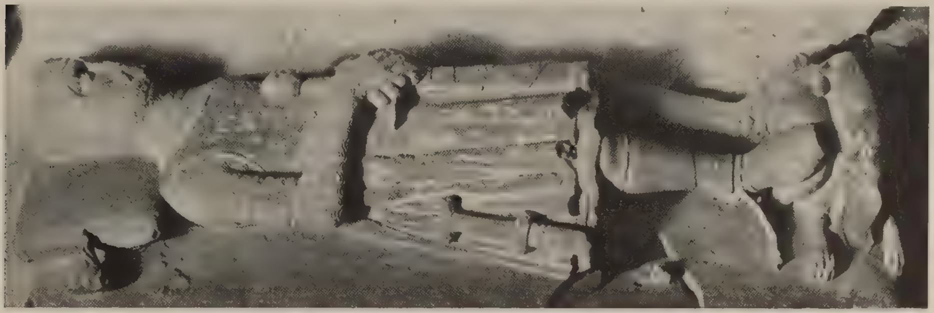

Photo. Arxiu 'Mas'

2. Effigy of Bernardo de Minoris, †1330, at Manresa, with plate additions to limbs

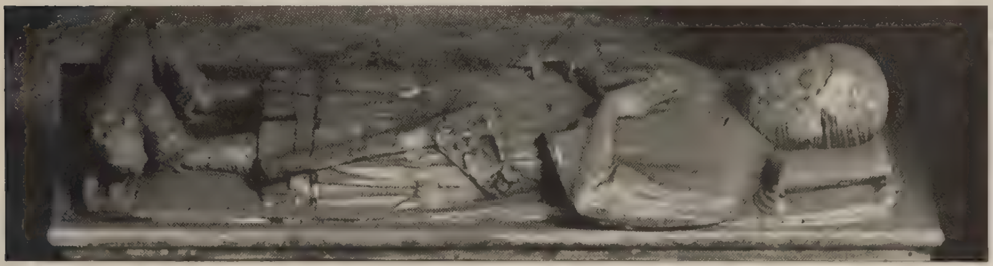

Photo. Arxiu 'Mas'

3. Effigy in 'banded' mail of a member of the Cardona family at Montserrat, *c.* 1330

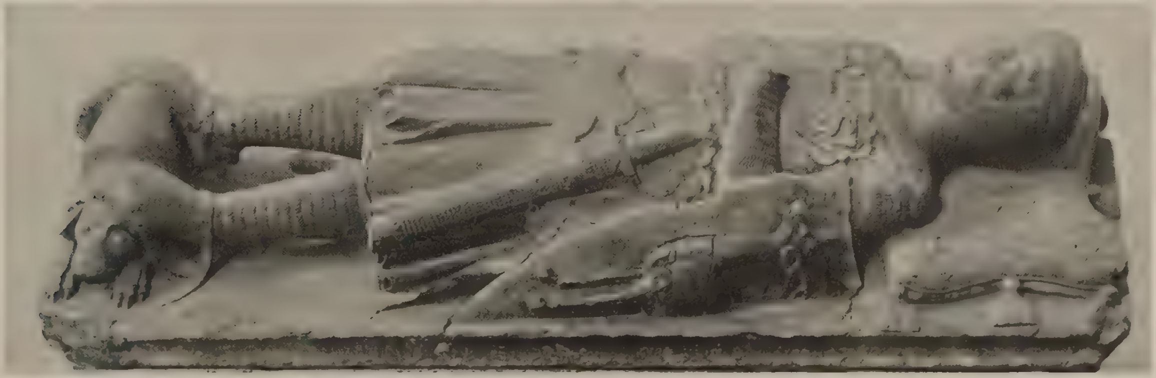

Photo. Arxiu 'Mas'

4. Effigy of Ugo de Cervellon, †1334, Hospital Church at Villafranca del Panades

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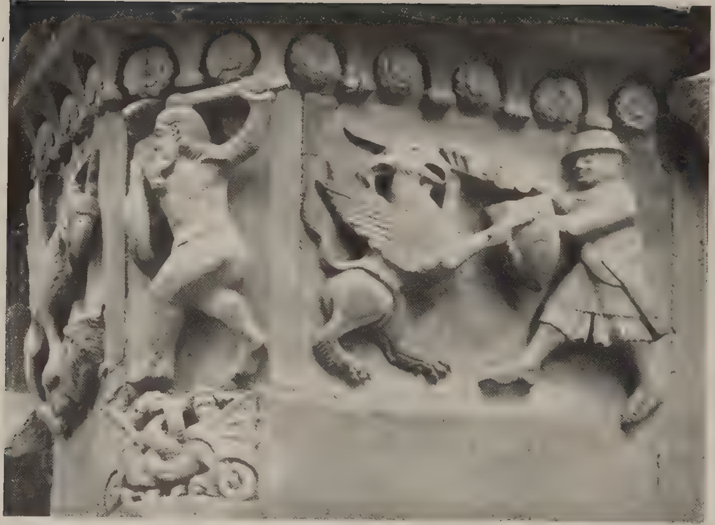

Photo. Arxiu 'Mas'

1. Capital of the Puerta de San Ibo, early fourteenth century, Barcelona Cathedral, showing St. Vilardell and the dragon

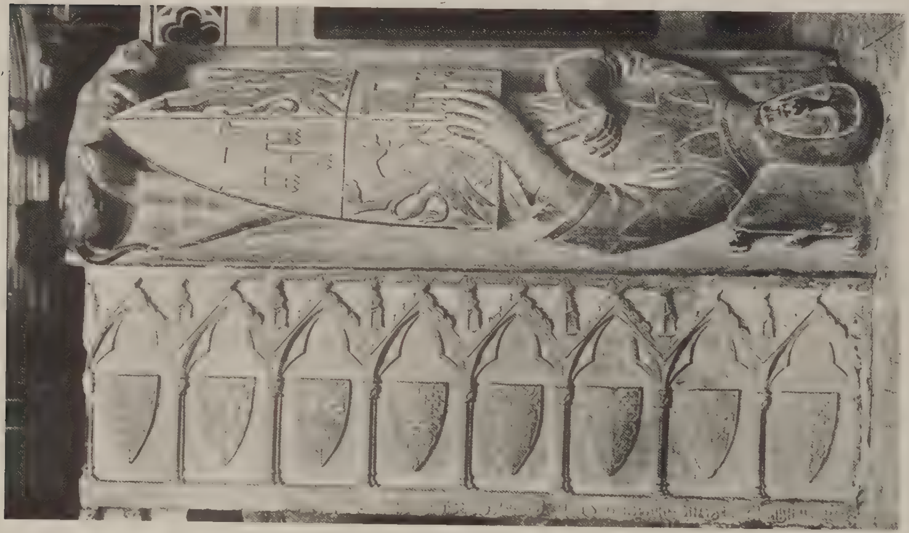

Photo. Arxiu 'Mas'

2. Monument of one of the Castellet family, †1323, at Villafranca del Panades, showing gauntlets

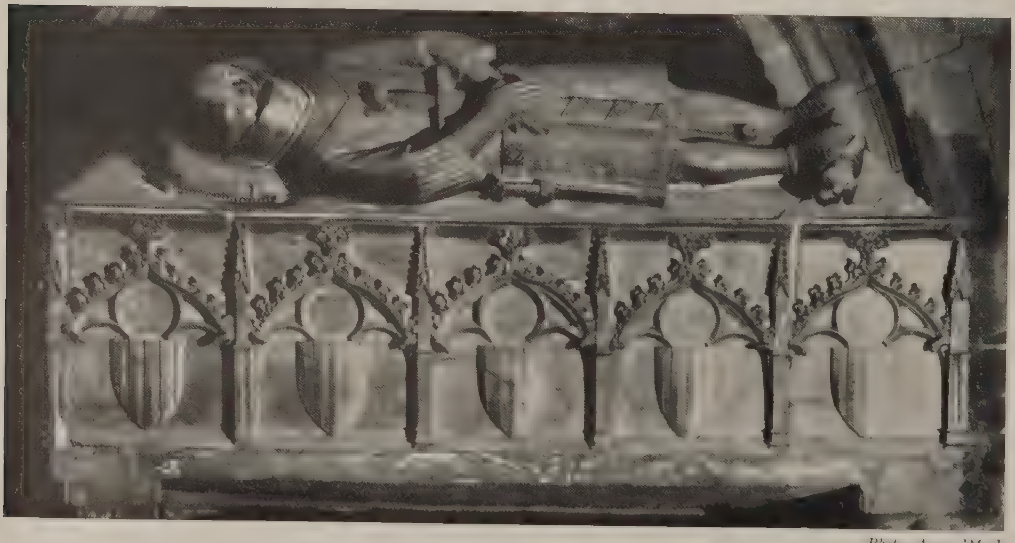

Photo. Arxiu 'Mas'

3. Monument of Ramon Berenguer II, 'Cap d'Estona', Count of Barcelona, erected at the end of the fourteenth century by Pedro III of Catalonia

Published by the Society of Antiquaries of London, 1933

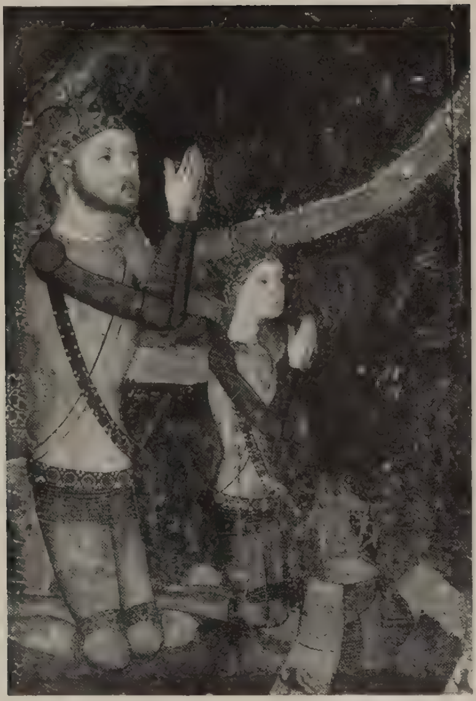

Photo. Arxiu 'Mas'

1. Detail showing the kneeling figures of Henry II Trastamara, King of Castile, and his son John, in the painting of the Virgin and Child, attributed to the Master of Tobed, painted between 1367 and 1379. In the possession of Don Ramon Vicente, Saragossa

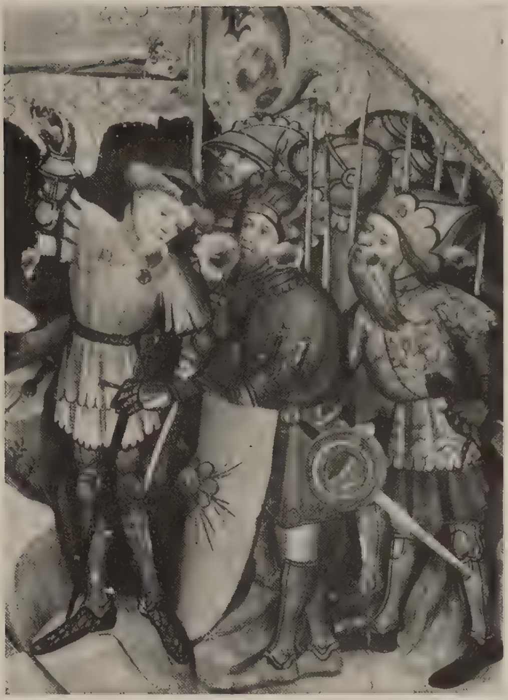

Photo. Arxiu 'Mas'

2. Panel, *c.* 1420, detail of martyrdom. Museo Episcopal, Tarragona

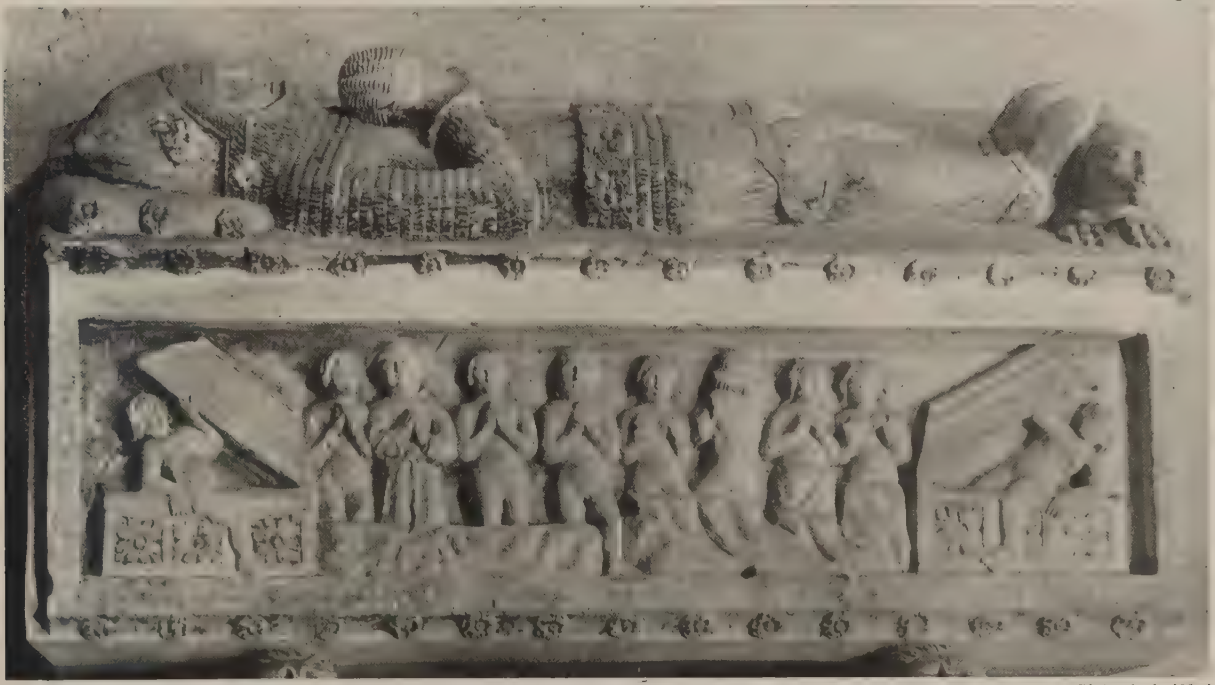

Photo. Arxiu 'Mas'

3. Effigy, second half of the fourteenth century, in the Hospital Church at Villafranca del Panades

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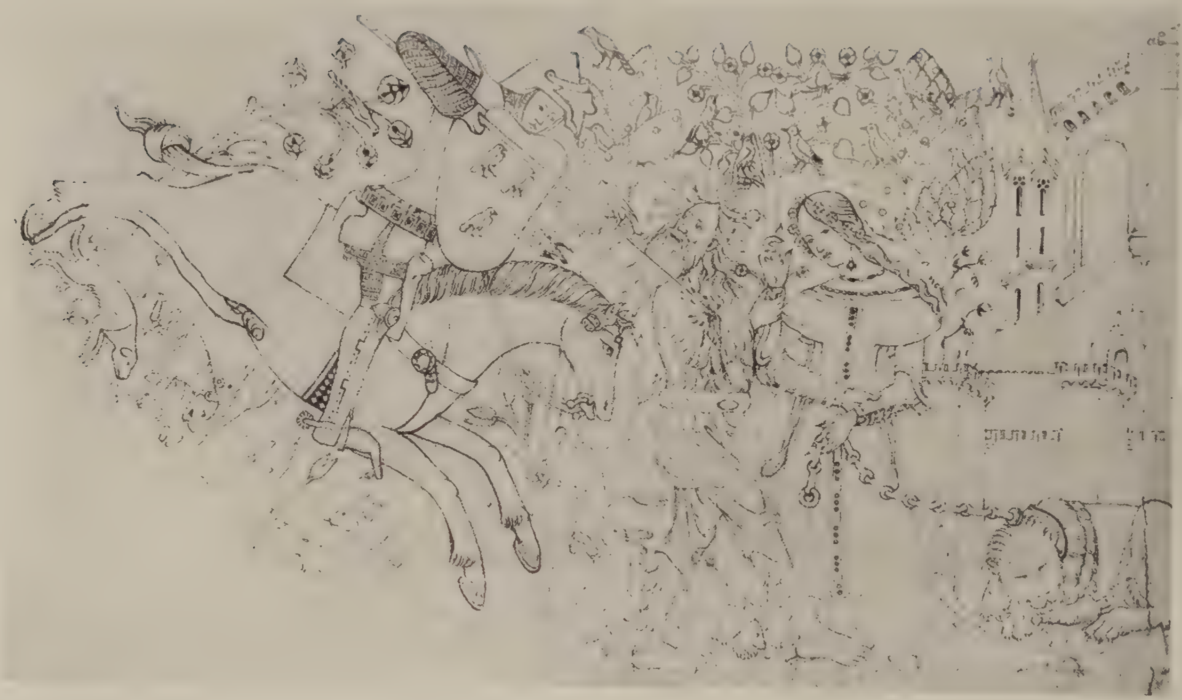

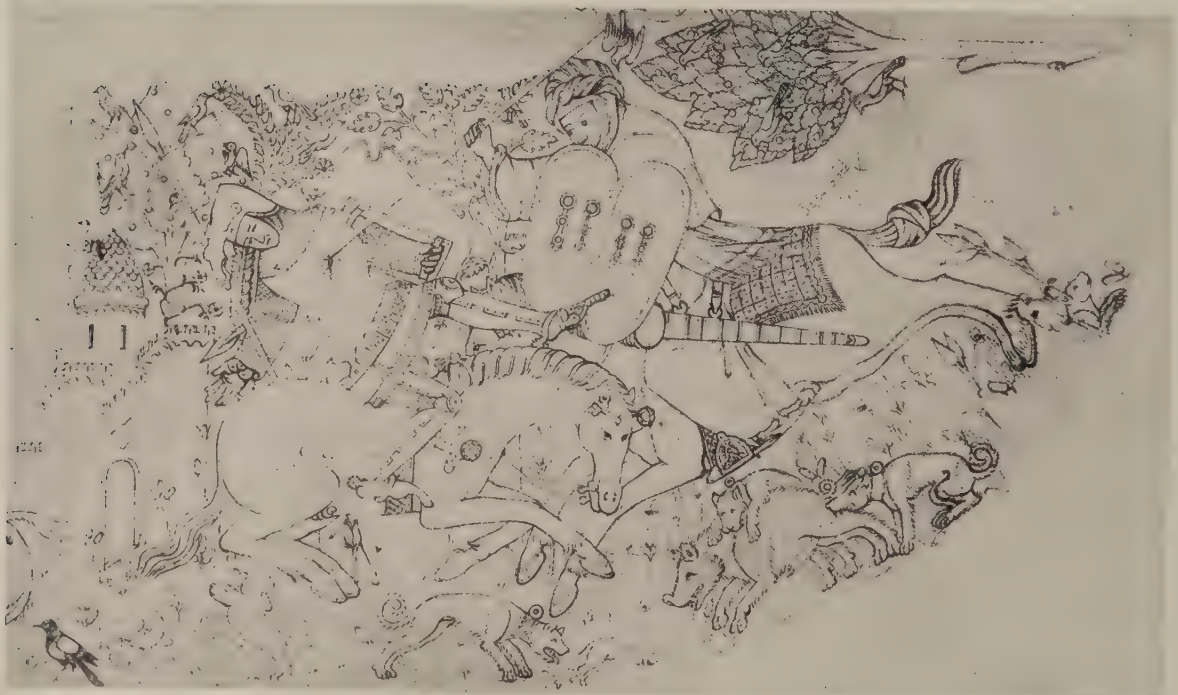

Ceiling paintings by an artist of the Italo-Spanish School, late fourteenth century, in the Alhambra at Granada

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who have compelled him to show a Christian knight in armour being overthrown by a Moorish horseman.

The triangular shield (*escudo*) continues to be shown in Spanish paintings of the early fifteenth century, though its survival may be only an artist's convention, for it is usually replaced now by the rectangular bouched shield with the upper and lower edges turned outwards as carried by the mounted figure of our own Henry V in Westminster Abbey. Then there is the little round fist shield known as a *broquel*, here illustrated in a panel in the Museo Episcopal at Tarragona (pl. LXXXI, 2). Note the round-visored bascinet beyond. The companion panel shows an excellent representation of the brimmed war-hat or *cabacete*, which will be referred to again.

The central panel of the great *retablo* de San Jorge in the Victoria and Albert Museum shows St. George fighting beside King Peter I of Aragon at the Battle of Alcoraz (pl. LXXXIII). This spirited composition is believed to have come from a church near Valencia, and its date must be about 1420. The plate armour of the Christian knights is fully developed, though some still wear the mail aventail and pig-faced visor (this is clearly shown on one of the sleeping guard in one of the side panels representing St. George in prison). The equipment of the Moors is in marked contrast to that of the Christian chivalry. They are marked by their flowing robes and complete absence of plate armour; the large heart-shaped *adargas* are charged with devices of a scorpion and a turtle, and one notices the Hispano-moresque hilt of the sword of the Moorish king in the foreground.

In the treasury of the Chapel of St. George at Barcelona is a little statuette in silver (pl. LXXXVII, 1). It is one of the most charming compositions of its kind and has recently been made the subject of an article by Mr. F. M. Kelly.[1] Two years ago when I was in Barcelona I was allowed to make a careful examination of it. St. George is the patron saint of Barcelona, and on the 23rd April the Festa de San Jorge is celebrated with much ceremony in this chapel, which contains one of his bones. The statuette is interesting in the first place because it is not cast, but is built up with each plate carefully hammered out and fitted as though it were a miniature suit of armour. The hinges, straps, and other details are gilt. The shield is a later addition. But what is of especial interest is that we can recognize here not a Spanish armour, but a Milanese one. The fame of the Missaglia had got abroad, and from now on such Spanish gentlemen as could afford it imported their armour from Milan.[2] This suit resembles in many details the giant armour of Ulrich of Matsch at Churburg,[1] and M. Pauilhac possesses a very similar bascinet (pl. LXXXVIII, 1) which came from a Spanish church. The tassets for some reason have been changed over, but every part is accurate and complete. From now on one frequently sees pictures of Spanish troops armed lightly in brigandines and mail, with open helmets, while their leaders are clad in complete white armours of Milan. The connexion between Italy and Aragon was strengthened in the middle of the fifteenth century by the successful claim of Alfonso V to the kingdom of Naples, where he attracted to his court many of the most notable figures of Italian art and literature. His medal by Pisanello shows him in a Milanese armour of this date, and we have already illustrated in an earlier article[2] the armoured figures on his triumphal arch by Laurana.

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[1] *Connoisseur*, LXXXVI, 151–4, Sept. 1930.

[2] The name Milan is here used generically to cover the whole armour-producing district of Lombardy, part of which, in the Alpine valleys between Bergamo and Brescia, was outside the duchy of Milan.

M. Pauilhac possesses the skull of a great bascinet, retaining the pivots for the visor, which came from the north of Spain, and which Sir Guy Laking suggested, after comparison with others to be seen in English churches, might be English.[3] But the back view of the Barcelona St. George shows a contour exactly resembling M. Pauilhac's with the pivots in the same relative position, and there seems no reason to believe that it does not belong to the country where it was found. There is a series of paintings of St. George in the Museo Episcopal at Tarragona, which came from the church of Pobla da Ciervoles, and are attributed to the school of Valencia (pl. LXXXIV, 1). St. George is shown in complete plate, but his followers wear brigandines, open sallets with puggarees, and no armour on the legs. Their Moorish adversaries wear even less, but one notices the typical *adarga* on the ground and the scimitar. At Saragossa there is a St. Michael painted in 1454, and showing armour of Italian type with breastplate covered in rich brocade, which is a feature often found in the painted panels of this time.

A few years ago[4] M. Reynaldo dos Santos published the superb series of tapestries preserved in the church of Pastrana, which illustrate with every kind of military particular the expedition of Alfonso V (Africanus) of Portugal and the taking of Arzila in 1471 (pl. LXXXV). The king and his son alone wear full white armour of plate, the rest wear velvet-covered brigandines with sallets of various forms, and carry Moorish *adargas*. All the details of this rich and crowded composition repay close examination.

Documents support the pictorial evidence of the export of armour from Milan to Spain. In 1436 Tomaso Missaglia appointed Gaspare de Zugnio his

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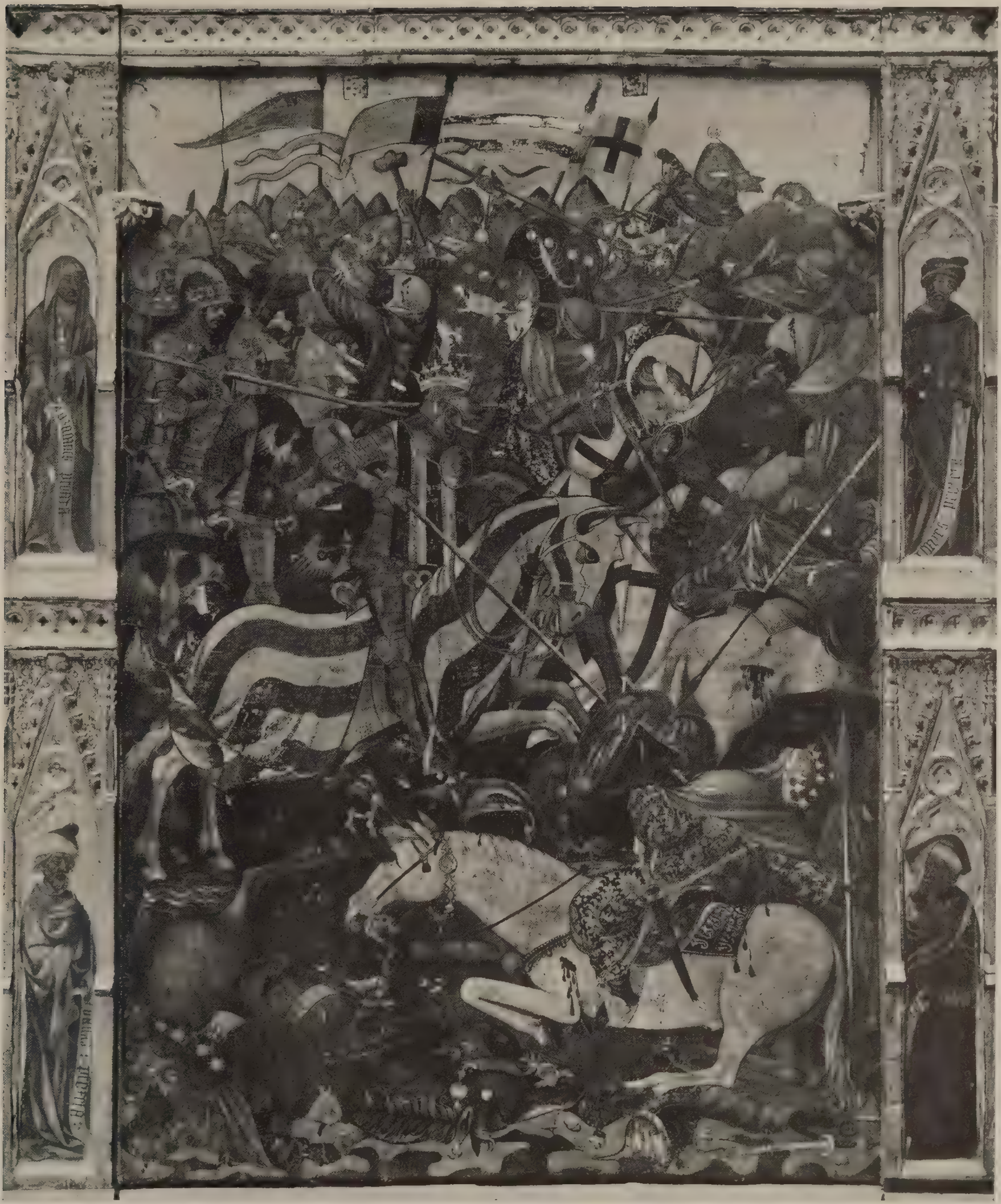
[1] Oswald Graf Trapp and J. G. Mann, *Armoury of the Castle of Churburg*, 1929, no. 19.

[2] *Archaeologia*, lxxx, 136, pl. XXVII.

[3] Sir Guy Laking, *Record of European Armour and Arms*, ii, fig. 307.

[4] Reynaldo dos Santos, *As Tapeçarias da Tomada da Arzila*, 1925.



Central panel of the Retablo de San Jorge, Valencian School, *c.* 1420, in the Victoria and Albert Museum

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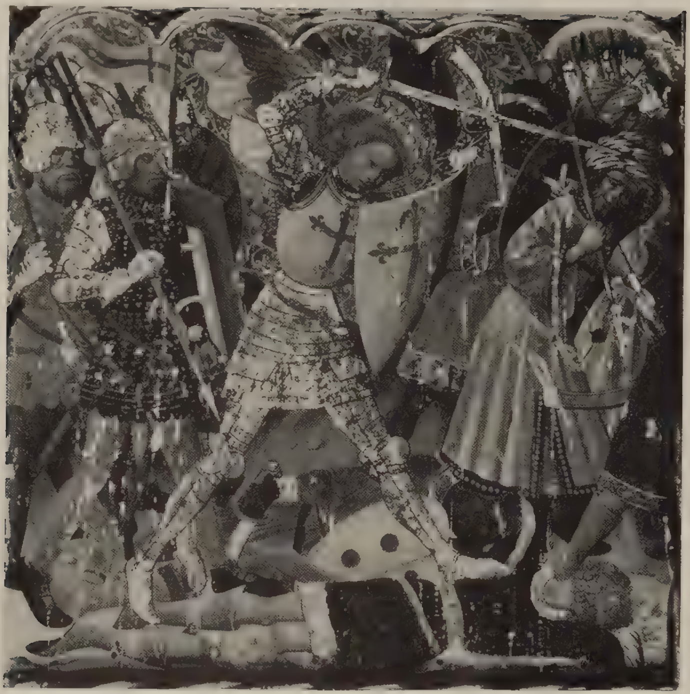
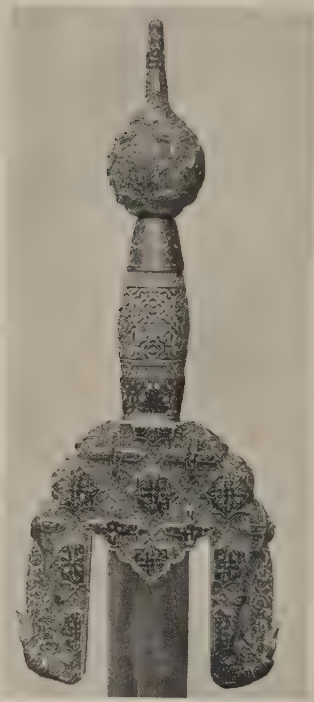


Photo. Arxiu 'Mas'

1. Panel from a series of St. George, *c.* 1420, in the Museo Episcopal at Tarragona, from Pobla de Ciervoles



2. Sword of Boabdil, last king of the Moors, in the Artillery Museum at Madrid

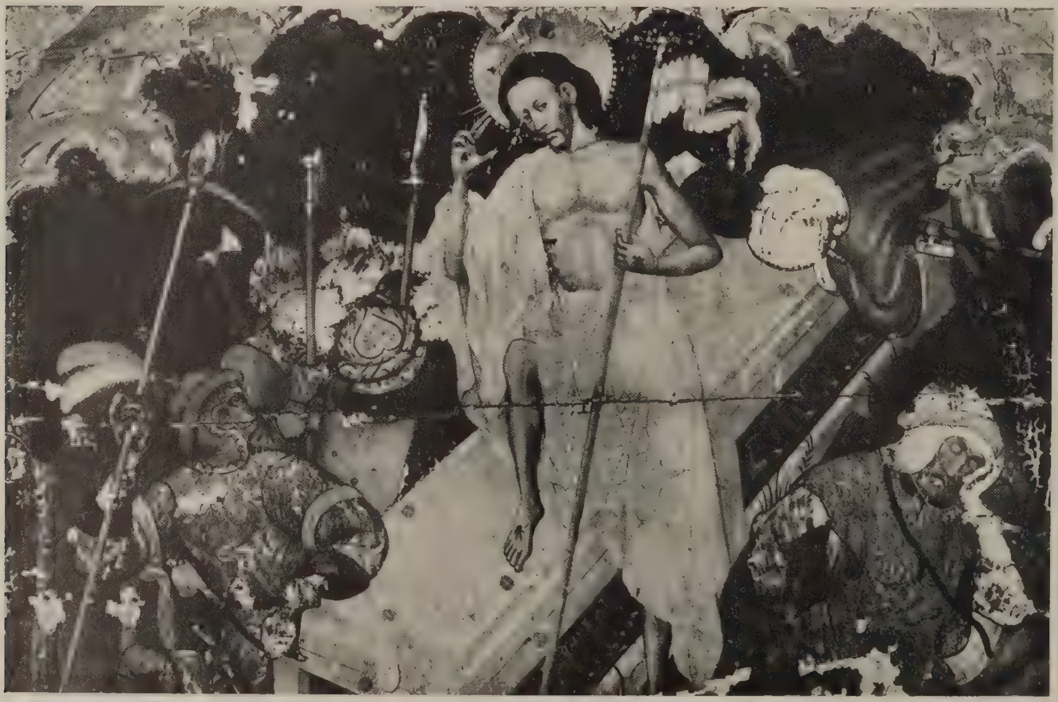


Photo. Arxiu 'Mas'

3. The Resurrection, Museo Diocesano, Barcelona, second half of fifteenth century

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agent in Catalonia, Galicia, and other territory of the kings of Aragon, Sicily, and Navarre, and of Santiago de Compostella.[1] Zogno is a village in the Val Brembana, near Bergamo, in the district at one time famous for its armourers.

From now onwards the tombs of the wealthy show Milanese armours; one of the first is that at Siguenza of Don Gomez Carillo de Albornoz, who died in 1441, which shows the large Italian elbow cop attached by points.[2] The Spanish tombs of the fifteenth century are no longer carved in freestone, but are of alabaster or marble, with the details of the armour minutely rendered. The deceased generally wear round caps on their heads, while their sallets lie at their feet where a page crouches beside them.

Among others of a later date is the tomb of Sancho Davila at Avila, who died in 1428, which was probably erected forty years after his death. It is very similar to that of Pedro de Valderrabano, who died in 1465, in the same cathedral (pl. LXXXVI, 2) and presumably came from the same workshop. There is another of Diego de Juste †1480 (pl. LXXXVI, 3) at Salamanca, which belongs to the school of Gil de Siloe, father of the better-known Diego de Siloe. The detail of the elbow-cop with its reinforcement of the wing is typical of Italian armour, whereas the high-reaching placate is equally Spanish. The armour of the effigy must have been modelled in the first place from an actual suit, for every strap and detail is accurately rendered with obvious pleasure and understanding.

The great tombs in the Cartuja de Miraflores, a detail of which is reproduced on pl. LXXXVII, 2, were begun by Gil de Siloe in 1489 and finished in 1493. There are two effigies of this school in yellow marble in the Victoria and Albert Museum representing Don Rodrigo de Cardenas in armour and his wife from the church of San Pedro at Ocana near Aranjuez. Less pleasing is the tomb of Don Diego de Arraya †1490 in the old cathedral at Salamanca; but the details of his Italian armour, including the *lisière d'arrêt* on his vambrace, are carefully rendered.

It is now possible to find actual armours to corroborate deductions from painting and sculpture. It is interesting to note that some of the armour made in the Spanish style bears Milanese marks, and demonstrates that the Italian craftsmen modified their style for Spanish export. There are certain Spanish traits, small in themselves, which in the aggregate make Spanish Gothic armour recognizable, even when pieces have been incorporated in composite suits.

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[1] E. Motta, 'Armaiuoli milanesi', in *Archivio Storico Lombardo*. Anno XLI, 1914, p. 200.

[2] Ricardo de Orueta, *La Escultura funeraria en España* (*provincias de Ciudad Real, Cuenca, Guadalajara*), 1919, fig. 16.

One of these features is the broad-brimmed war-hat (*cabacete* or *capacete*), half-way between a sallet and a chapeau, and the progenitor of the later morion. We have already traced it from the fourteenth century through the early years of the fifteenth century in the *retablo* at Tarragona, and numbers of them still exist (pls. LXXXVII, 3; LXXXVIII, 2, 3, 4 and 5). Sometimes they have brass bands round them engraved with minuscules, for the Spaniards had learnt from the Moors the decorative value of inscriptions. There is one in the Museum at Tsarskoe-Selo near Leningrad, which Böheim described as Lucchese. Probably he based this description on the one in the Wilczek Collection at Kreuzenstein which was said to have been found during repairs to the walls of Lucca, but its type is none the less definitely Spanish. The portrait by the *Maître de l'Abbaye de Asseghem* of Philip the Fair, Maximilian's son, in the Musée Royal at Brussels, shows him wearing a war-hat of this type. There is little doubt that the Flemish artist deliberately selected this head-piece to illustrate Philip's newly-attained dignity of King of Castile, which he claimed as the husband of the mad Johanna, daughter of Queen Isabella.

Many of these war-hats carry an armourer's mark like a crow's foot, which it has been suggested is the mark of Calayatud or Castejon de las Armas (fig. 9). The extensive Inventory of the Armoury of the Duke of Infantado[1] frequently refers to armours of Calayatud, a town near Saragossa once noted for its armourers and goldsmiths, and incidentally the birthplace of the poet Martial.

With these war-hats was worn the long bevor called a *barbote*. This was often built up with plates supported on spring-catches reaching to as far as the eyes, to act as a visor, and at the same time extending in a point well down over the chest to afford as much protection as possible to the breast, which would be defended only by a brigandine. The late M. Buttin first drew attention to this characteristic piece of Spanish armament in an entertaining article entitled *Un primitif de la Collection Manzi* published in the *Gazette des Beaux-Arts*.[2] It dealt with a painting of Christ taken in the Garden that had been described by a critic as '*indiscutablement d'une école rhénane*', but which M. Buttin was able to show by a cumulative process of reasoning was even more indubitably Spanish. Although he regarded his article as a mere *jeu d'esprit*, it carried with it a serious warning to critics to beware of trusting too blindly to aesthetic intuition, and not to despise the important evidence which a knowledge of armour can supply. He examined the picture step by step, beginning with general impressions and pointing out the Spanish type of face, the swarthy colouring and aquiline noses of the High Priest's soldiers, and the short black side-whisker, which has always been affected in the Peninsula. Next he drew attention to the absence of plate ('all-white') armour which by this time had become the rule in German primitives showing soldiers. Then descending to details, he pointed out the very Spanish nature of such armour as they wore: the heart-shaped Moorish shield or *adarga*, the long *barbote*, and the semi-Oriental ear-dagger. But he had reserved for the end an argument from which there was no escape—he pointed out that if one looked closely at the halo of gilded gesso behind the head of St. Peter it would be seen to bear in unmistakable lettering the name *Sant Pedro*.

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[1] *Documentos inéditos para la Historia de España*, tomo lxxix, Madrid, 1882, 479–541.

[2] Fifth Ser. vol. xiii, 79–88.

The great armoury of the Duke of Osuna was dispersed in three sales in 1882, 1890, and 1896. Unfortunately there is no pictorial record of it, and the majority of its contents are now unidentifiable among the anonymous mass of armour distributed throughout collections and museums on both sides of the Atlantic. Enough, however, can be traced to show that it contained a good deal of native Gothic armour, such as still exists in the armoury of the Duke of Medinaceli. The Gothic armours, which were acquired by the Conde del Asalto, passed into the collection of the late Mr. Ambrose Monell and it is understood now form part of the collection of Mr. Randolph Hearst in America. Other composite Gothic armours are in the Boston Museum and were in the collection of the late Dr. Bashford Dean.[1] The nine armours of men-at-arms in barbotes and brigandines of the end of the fifteenth century in the Real Armeria were built up by the Conde Valencia from old pieces in the Royal Armoury and from a number of brigandines and other parts purchased at the Osuna sale of 1882 (pl. LXXXVII, 3). The leather of the brigandines has been extensively repaired, but their outward appearance has not been altered, and they form an interesting addition to the Royal Armoury, which is not strong in the earlier history of Spanish armour. The Conde Argaiz, another Spanish collector, seems to have bought largely at the Osuna sales, and his very extensive collection of Spanish Gothic pieces now belongs to M. Pauilhac.

If I have occasion frequently to mention M. Pauilhac's collection it is because he has been fortunate enough to acquire *en bloc* three great Spanish collections—those of the Marquis of Casa Torres, the Conde Argaiz, and Don José Estruch of Barcelona, all of which contained much Spanish armour of a period anterior to that in the Royal Armoury.

Among these is a Gothic armour from the Argaiz collection which is a good example of the type of white armour made in Italy for the Spanish market (pl. LXXXIX, 1). The same unusual form of the sallet is also to be seen in a fine example in the Real Armeria (D 14), but the latter has a pointed visor with the lower part ridged as on some of the Spanish armets. M. Pauilhac's sallet bears the cross-keys of Negroli of Milan, but its form and especially the high placate on the breastplate and the mitten gauntlets with flaring cuffs are typical of the Spanish style.

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[1] Metropolitan Museum of Art, New York, *Loan Exhibition of Arms and Armor*, 1911, pls. I, II, III, IV, VI, and VII.

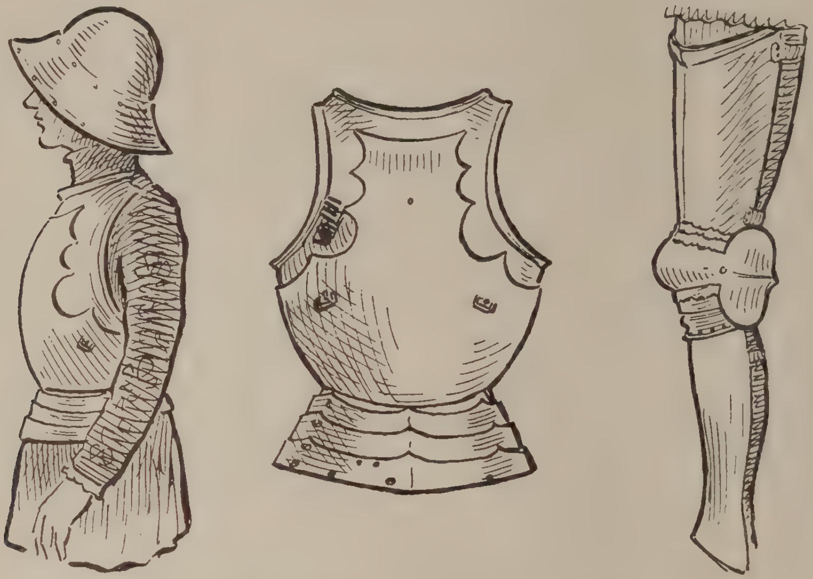
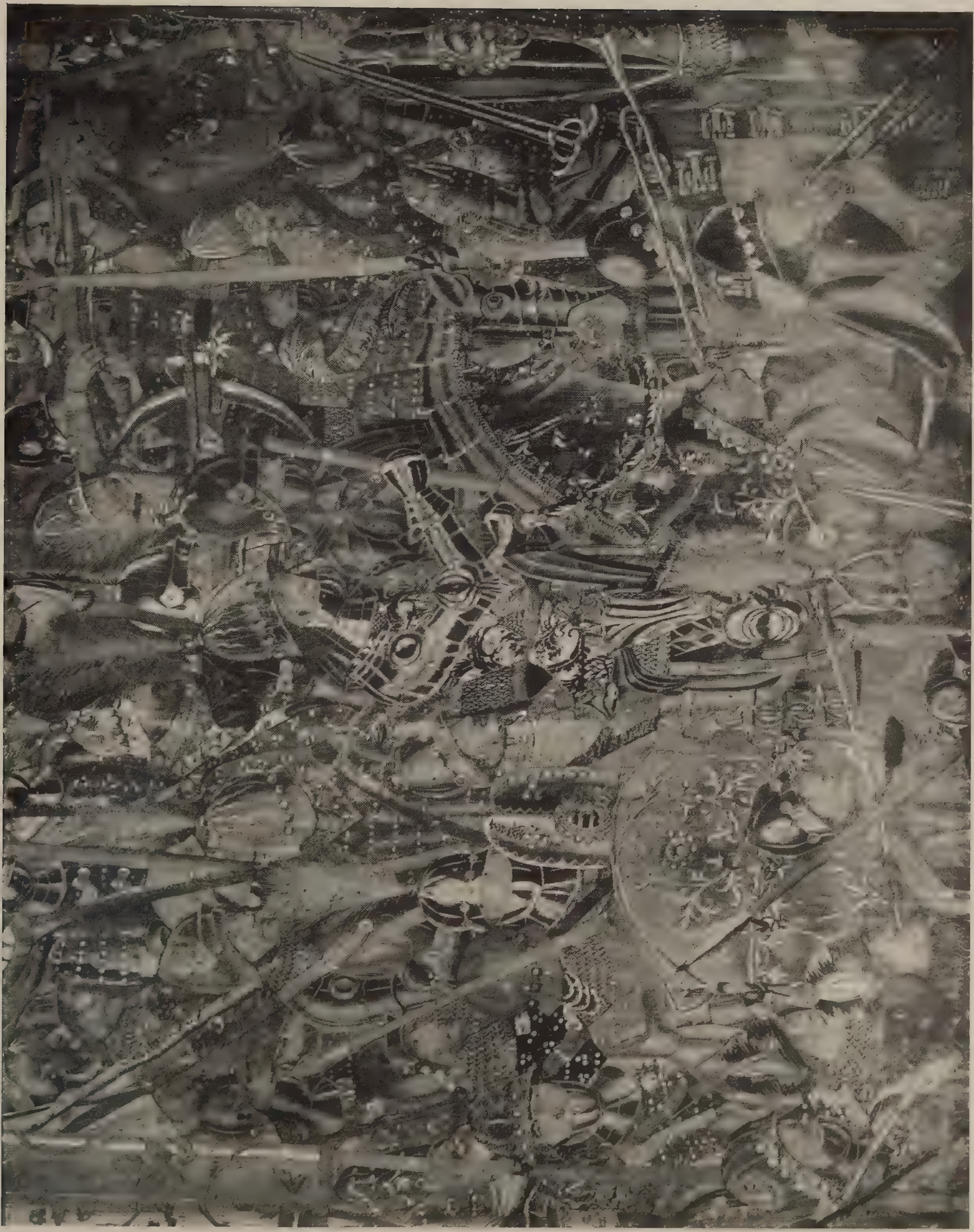


Fig. 5. Armour worn by Duarte de Almeida in 1476, Toledo Cathedral.

A type of breastplate with high placate, sometimes with the borders stepped or cusped, is frequently found on Spanish Gothic white armours. It appears on the interesting armour of Duarte de Almeida, who bore the Portuguese standard at the battle of the Toro in 1476, which is preserved in the Capilla de los Reyos Nuevos in Toledo Cathedral (fig. 5). The backplate of this armour is built up of five cusped plates overlapping upwards, similar to many Milanese armours of this date, and the form of the leg-armour with strong *lisières* on the cuisses supports the idea of a Milanese provenance. Almeida lost both his arms in a gallant attempt to retain the standard, which may account for the absence of pauldrons and vambraces on the armour as it now stands. The Italian-made armour of King Ferdinand the Catholic in the Ambras Collection (pl. LXXXIX, 3) now at Vienna, suggests its Spanish destination by the high fish-tailed placate and the brass washers punched with mozarabic patterns which decorate its borders (fig. 6). So, too, is the breast of the armour of Philip the Fair in the Real Armeria (A 11), which also exhibits the Spanish type of mitten gauntlet. The borders of this armour and the



Alfonso V (Africanus), King of Portugal. Detail of one of the tapestries representing the taking of Arzila, 1471, in the church of Pastrana

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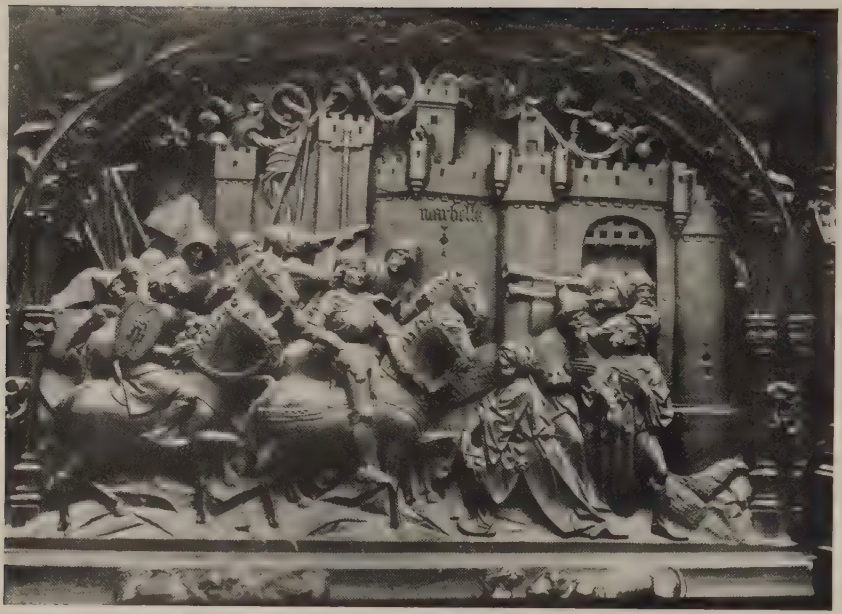

1. Wood carving on stalls of Toledo Cathedral by the carver Rodriguez, 1495, showing the victorious entry of King Ferdinand into Granada in 1492

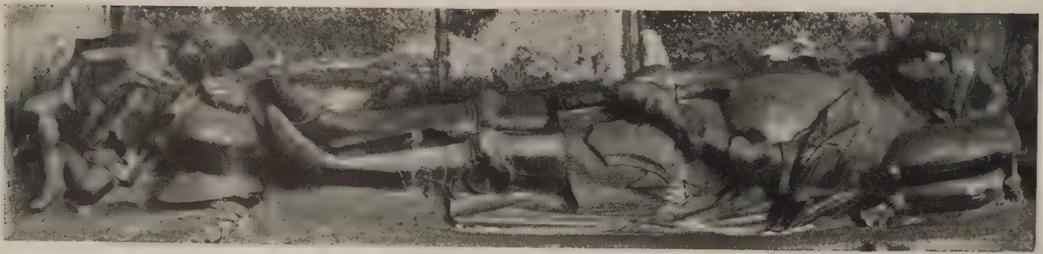

Photo. Arxiu 'Mas'

2. Effigy of Pedro de Valderrabano, †1465, in the Cathedral at Avila

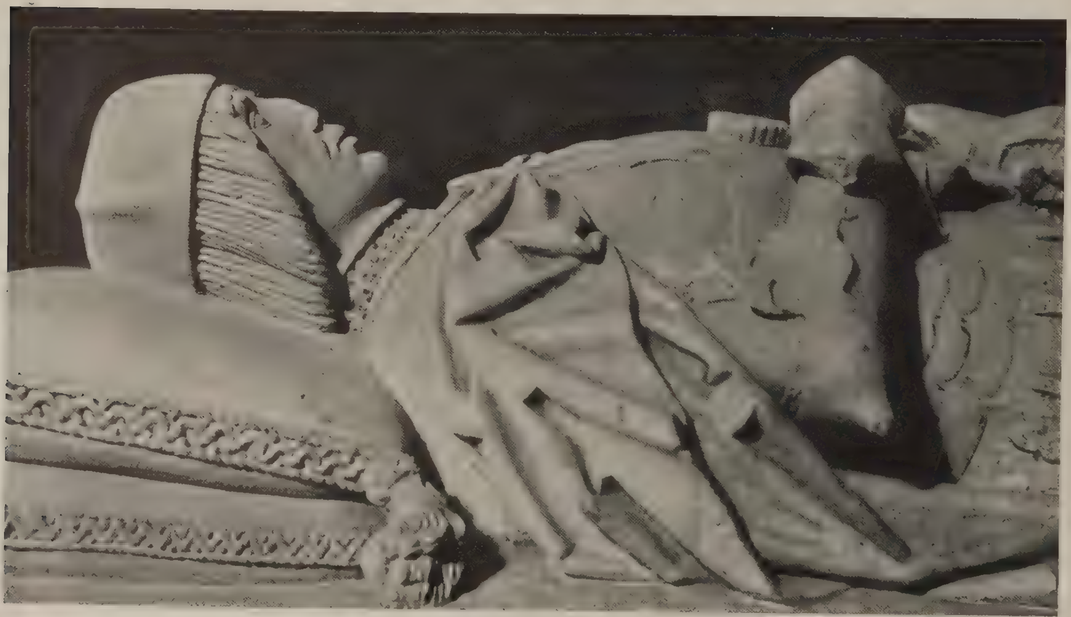

Photo. Arxiu 'Mas'

3. Detail of the effigy of Diego de Juste, †1480, in the church of St. Martin, Salamanca

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contemporary jousting suit are ornamented with etched and gilt patterns, which is evidence of their late date. This armour bears a mark (fig. 9), and Marchesi believed it to be the work of Jaques de Voys, of Brussels,[1] but the Conde Valencia was never able to discover his authority for this statement. Philip married Johanna of Castile in 1496 and died ten years later and the armours presumably date within those years.

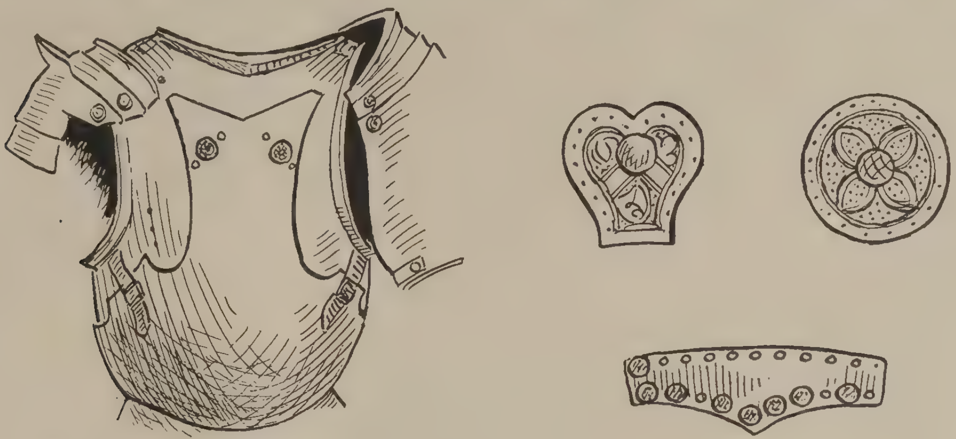

Fig. 6. Details of armour of Ferdinand, King of Aragon, at Vienna. Decorated tag and washer, and rump-plate.

The Osuna collection also contained a large number of plain breastplates without placates, high in the neck and narrow in the chest. These would be indistinguishable from many Italian breasts of the same period (the last years of the fifteenth century) were it not that some of them carry the mark of Calayatud. They have been much used by dealers to make up composite Gothic suits, eked out with pieces of Italian and German provenance.

Another Spanish feature is the long knee-cop extending well down the shin (fig. 7). This extension is obviously intended to compensate for the absence of greaves, although they are nowadays often mounted with full leg harness. The mark upon Mr. Cripps-Day's example, illustrated here, also appears on a Spanish jousting armour from the Osuna collection,[2] later in the Monell and Hearst collections. From the fact that some of these long knee-pieces have primitive roped borders, many may belong to the early years of the sixteenth century.

The export of Milanese armour has resulted in some of the most graceful armets of Italian fifteenth-century type being found in Spain. The Baron de Cosson had one (Sotheby's, 14 May 1929, lot 129) which came from the Osuna armoury; and one was in the Whawell sale (1927, lot 322) from a castle of the Duke of Najera, and made sale-room history when the bidding reached £3,900.

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[1] *Catalogo de la Real Armeria*, Madrid, 1849.

[2] New York, *Loan Exhibition*, 1911, No. 9.

Sir Edward Barry possesses another that was purchased in Madrid by the late Mr. Seymour Lucas. Some of the armets made for the Spanish market and probably dating from the early years of the sixteenth century, are distinguished by having the lower part of the visor thrown into shallow horizontal ridges. Examples are to be seen in the Wallace Collection, the Real Armeria at Madrid, and M. Pauilhac's collection, one of which bears the compass and initials of the Negroli of Milan, together with a tablet bearing the name SILVA, which suggests a Portuguese connexion.

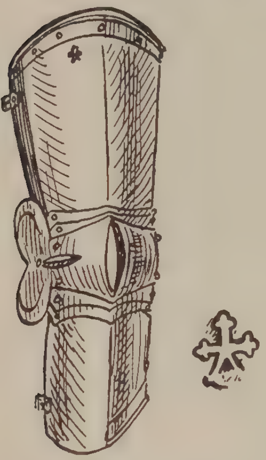

Fig. 7. Right cuisse and knee belonging to Mr. F. H. Cripps-Day.

Mention has already been made of the influence upon Spanish art which came from the Moors. The period of the Moorish conquest of Spain was the period of Haroun-al-Raschid and the Arabian Nights. Their civilization in Spain had been of a high order before internecine quarrels and Christian counter-attacks had undermined its prosperity. Averroes was a Moor of Cordova and taught the schoolmen of Europe the philosophy of Aristotle. Arab agriculturists irrigated the dry plateaux of Spain and made them blossom, and Moorish architects devised the intricate beauties of the Alhambra and laid out the gardens of the Alcazar at Seville.

There are two well-known sallets at Madrid,[1] the surfaces of which are engraved with intricate arabesques. One is of the long-tailed European form, and Count Valencia states that the other bears the cross-keys mark of Negroli of Milan, but it is possible that the decoration was added in Spain. Their description in the *Inventario Illuminado* as being 'old pieces that came from Flanders' has suggested that they were part of the armoury of Philip the Fair, archduke of Austria and ruler of the Low Countries by right of his father, and of Castile through his wife. In the case of no. D 12 the engraved portions are actually separate plates superimposed upon the helmet and making it very heavy. The decoration is not etched in the usual Italian manner, but is deeply ploughed in an unwavering line. The puggaree-like band round the centre and the applied filigree border are also Moresque in character; but on the other hand there are details in the design which have led some authorities to attribute the decoration to Saracen workmen of Venice.[2] It is not easy for the Western eye to distinguish between the work of Moslem craftsmen in Venice and those of Southern Spain.

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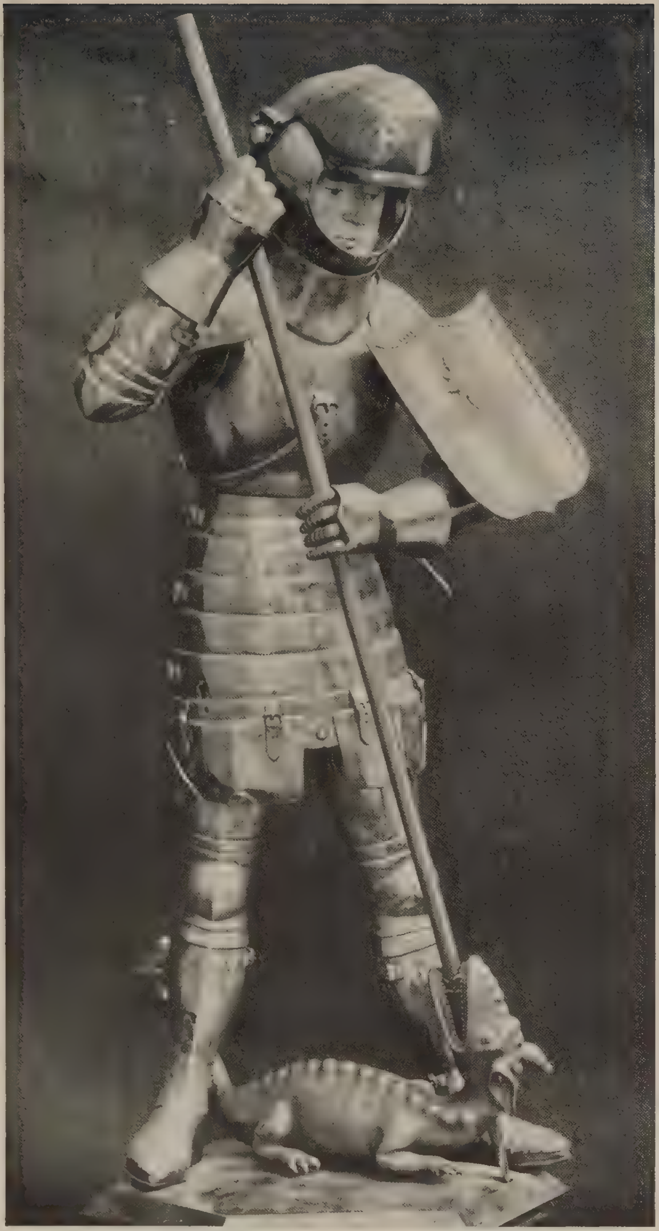
[1] Valencia, *Cataloga*, D 12 and 13.

[2] Compare a chamfron at Dresden published by Herr Uhlemann in *Z. H. W. K.*, N.S., vol. IV, pp. 80–7, and the engraved sword-blade in the Instituto Valencia, no. 60.



1. Silver statuette of St. George in the chapel of St. George in the Generalitad at Barcelona, showing a Milanese armour of *c.* 1430

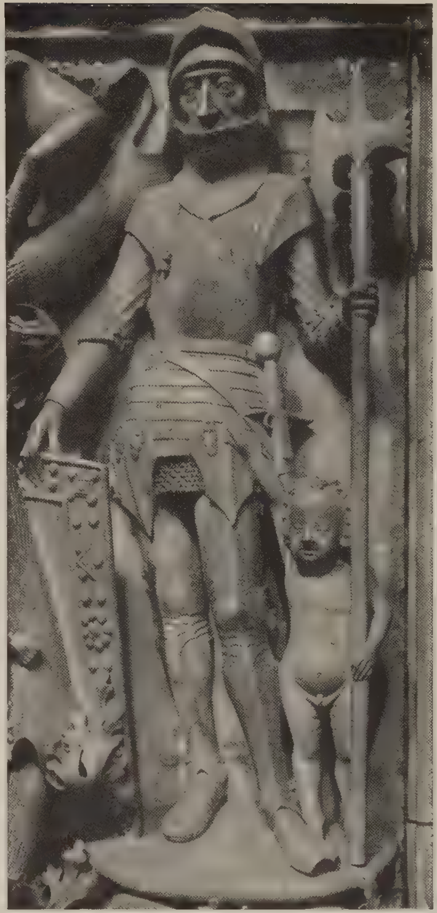
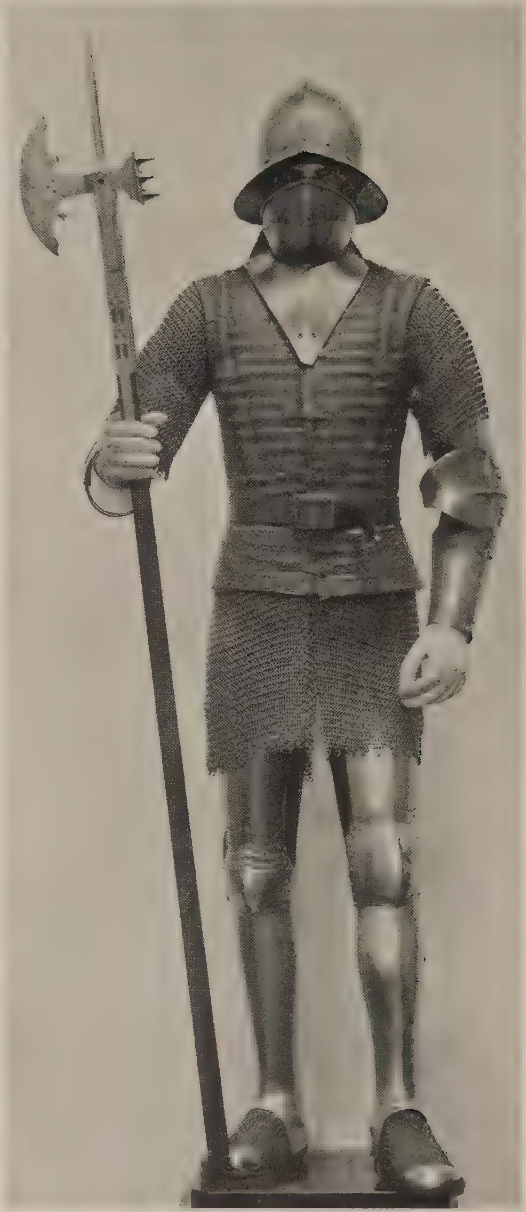


Photo. Arxiu 'Mas'

2. Detail of the monument of the Infante Alfonso, son of King Juan II, by Gil de Siloe 1489–93, in the Cartuja de Miraflores, near Burgos



3. Man-at-arms wearing cabacete, long barbote and brigandine opening down the front. Royal Armoury, Madrid

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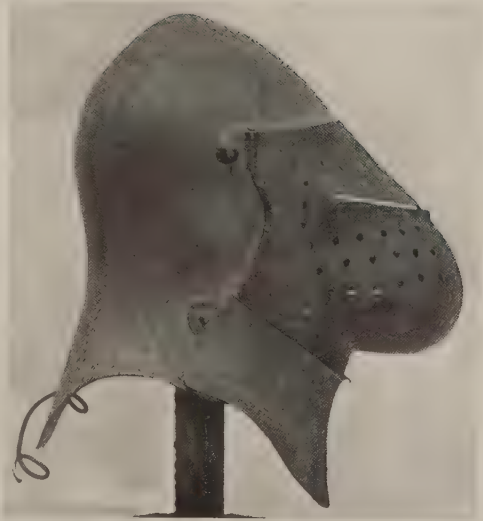
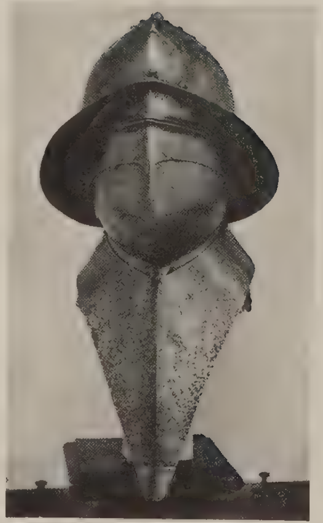
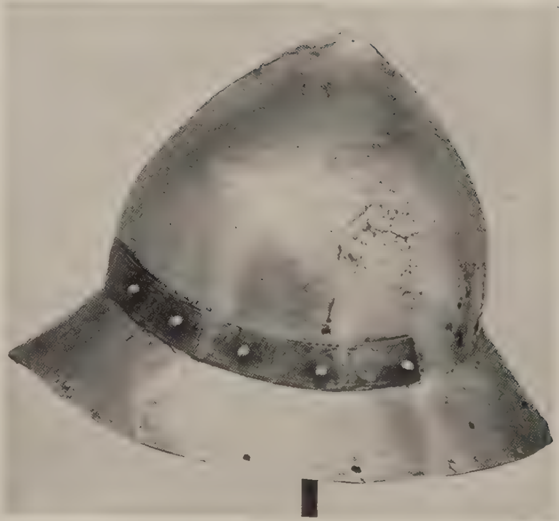


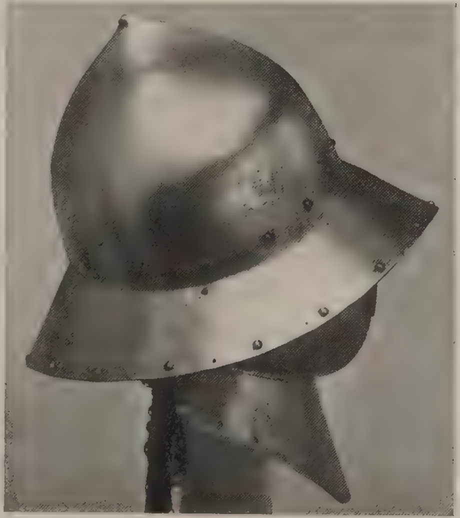
1. Bascinet, *c.* 1430, from a church in Spain



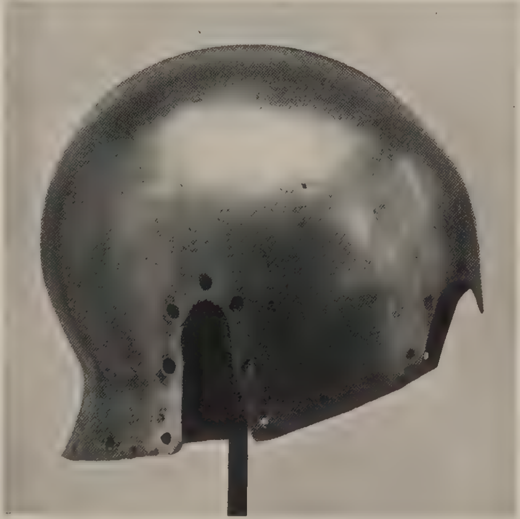
2. Cabacete with high barbote, late fifteenth century or early sixteenth, bearing a mark reproduced fig. 9 (4)



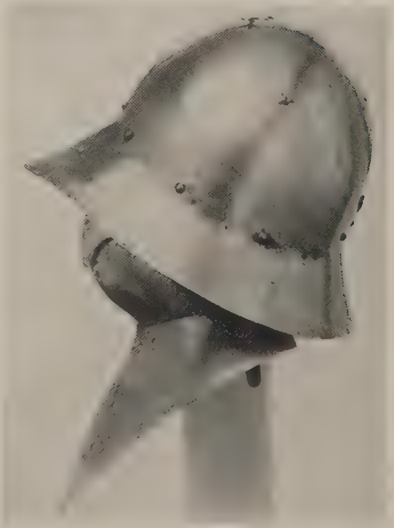
3. Cabacete, fifteenth century, with brass engraved band. Mark fig. 9 (5)



4. Cabacete and barbote



5. Celada bearing a mark similar to that of Keasbey Sale in 1925, 301



6. Cabacete with barbote. Mark fig. 9 (19)

Spanish helmets in the collection of M. G. Paulhac

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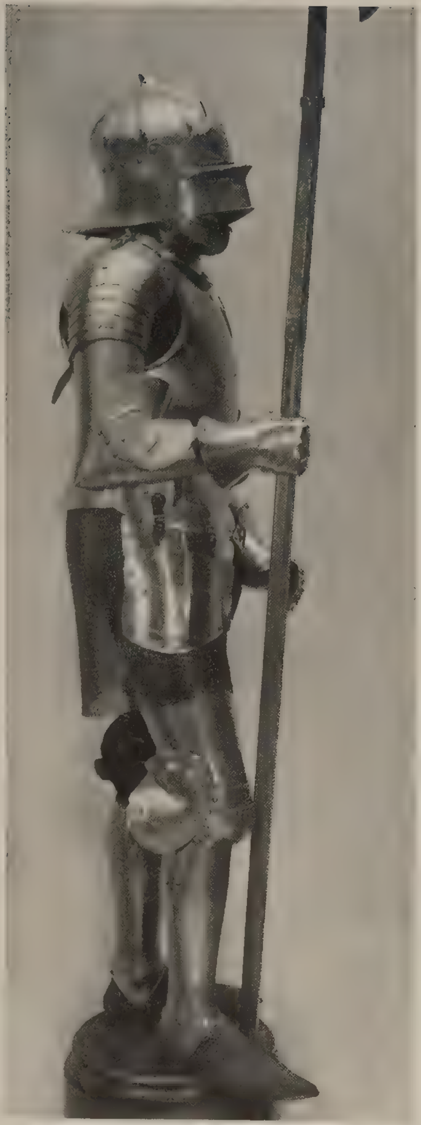
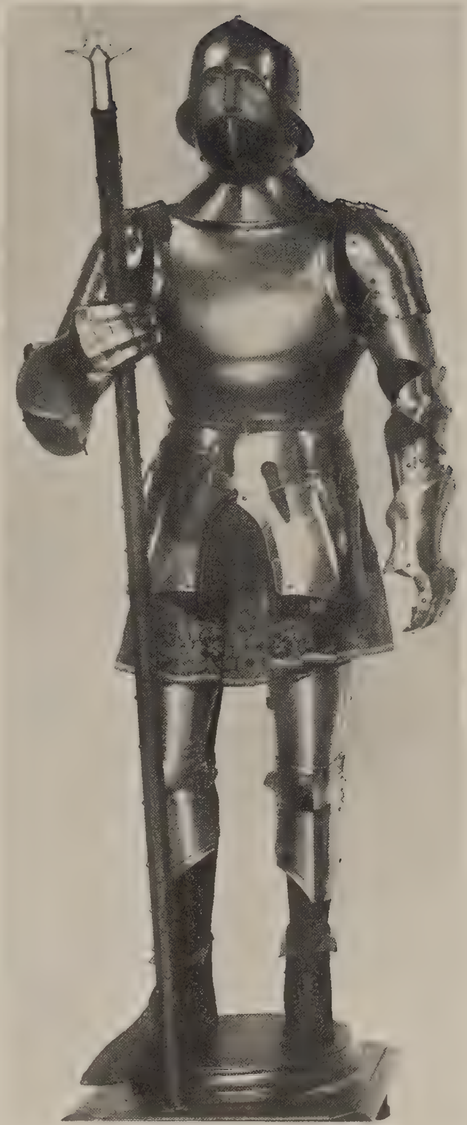
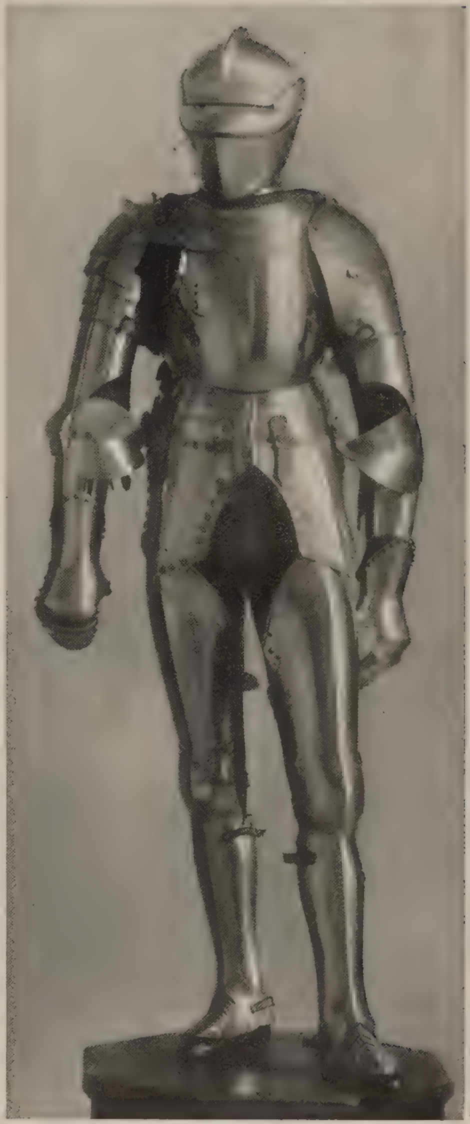


1. Armour in the Spanish style. The sallet bears a triple mark associated with the Missaglia of Milan, second half fifteenth century. Argaiz and Pauilhac collections



2. Armour of Spanish style, late fifteenth century, Argaiz and Pauilhac collections



3. Armour of King Ferdinand the Catholic, K. H. Museum, Vienna. (Mark fig. 9 (34)

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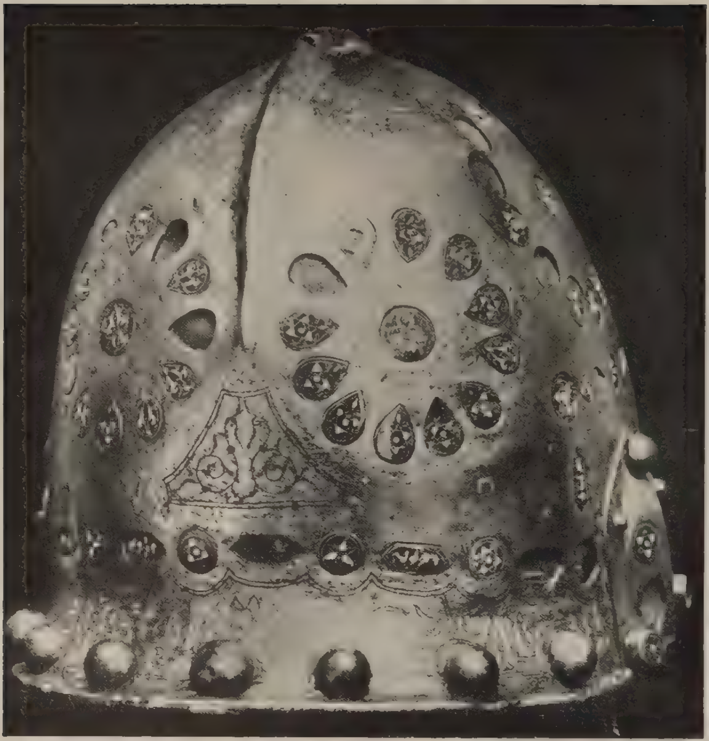
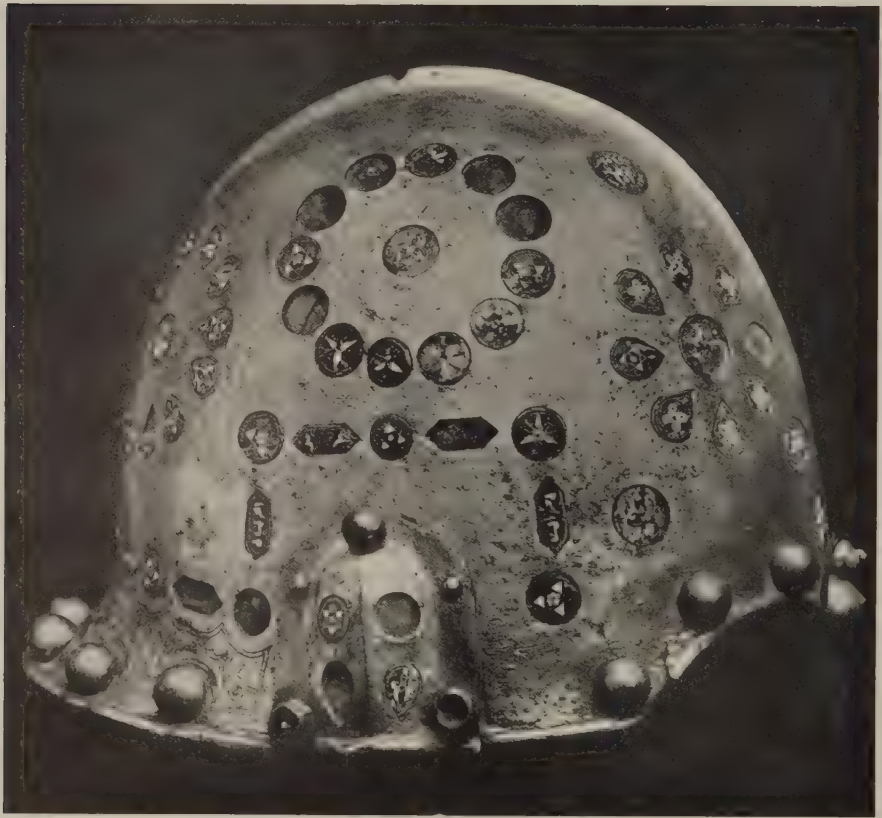


a



b

Gilt and enamelled sallet, known as the helmet of Boabdil, in the possession of Major the Hon. J. J. Astor, M.P. *a.* Back. *b.* Side view

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In the same way Sir Guy Laking came to the conclusion that the remarkable gold-plated and enamelled sallet which belongs to Major Astor was Venetian rather than Spanish (pl. xc). When it was in the possession of the late M. Bachereau, who obtained it from a small collection of arms in the Château de Perignen about thirty years ago, it was described as 'the casque of Boabdil' the last king of Granada. Sir Guy Laking based his attribution on an enamelled bit in the British Museum and an enamelled stirrup in the possession of Lady Ludlow.[1] But it is by no means certain that these are Venetian either. Two similar fragments of a bridle in the Museo Nazionale at Florence are there described as *Arte Moresca*, not *Arte Veneziana*, and against Lady Ludlow's stirrup one can place the enamelled Hispano-moresque stirrups in the Instituto del Conde Valencia at Madrid (nos. 53–4). The enamelled *cloisons* which decorate Major Astor's unique helmet are quite in keeping with the enamelled decoration of Boabdil's sword, which is now in the Artillery Museum at Madrid (pl. LXXXIV, 2) and other Hispano-moresque swords of that type. I must confess that when I was allowed by the kindness of Major Astor to make a careful examination of this helmet I wondered for a moment whether it was not another example of the enterprise of a clever enameller of the late nineteenth century, who imposed upon the foremost authorities of the time with rare arms and goldsmiths' work, which he would say had come from *un château en Espagne*. Its construction is remarkable. The basis appears to be a Spanish sallet of the low-crowned type with the sides cut out over the ears (cf. fig. 8 and pl. LXXXVIII, 5), not the deep Venetian or Milanese kind. It has been pierced through with circular and pear-shaped holes into which have been fitted *cloisons* enamelled in opaque red, white, black, and blue and a translucent green upon foil. The holes have then been backed by a number of crude patches riveted on the inside of the helmet. The surface has been roughened with a file and the gold leaf applied by a hammer, not fire-gilt. There are slight *pointillé* patterns traced round the *cloisons* and ornamental Cufic lettering at the back, while ornamental knobs are riveted round the rim. The whole effect is one of rough barbaric splendour, and not what one would expect from Renaissance Venice.

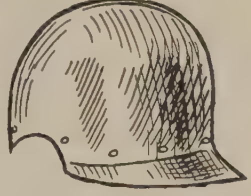
Fig. 8. Sallet from the Argaiz collection belonging to M. G. Paulhac.

The ear-dagger, which has a long history in the East, was introduced into Spain by the Moors, and a number of beautiful specimens exist, enamelled, etched, and damascened with Moorish ornament. That of Boabdil, in the Artillery Museum at Madrid, is of this type. The inventory of François II at

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[1] Sir G. F. Laking, *Record of European Armour*, ii, 15–18.

Fontainebleau mentions *Un poignart à oreilles d'or . . . façon d'Espagne.*[1] Though here again a Venetian origin has been suggested for some of them.

Even better known are the elaborate swords *de la gineta* to which Sir Guy Laking devoted several pages of description (pl. LXXXIV, 2).[2] They are purely oriental in type and but for their provenance would hardly come under the heading of European Arms and Armour. They can be traced in the early manuscripts of the tenth and eleventh centuries, in the Alhambra carvings, and in paintings of the first years of the fifteenth century.

I have already had occasion to mention the Moorish *adarga*, the double heart-shaped shield with tassels on the front. This characteristic form of shield appears at least as far back as the illuminations in manuscripts of the twelfth century. It was made of dressed leather, for which Fez and Cordova were famous, and its lightness in proportion to its size led to its being adopted by Christians as well. Used with a lance it formed the principal protection of the troops of light horse who rode Spanish jennets. A Spanish dictionary of 1723 describes the *adarga* as 'a kind of shield made of several thicknesses of leather glued and sewn together. It is of oval form, frequently heart-shaped, and in the centre of the inside are two *enarmes*, through one of which the left arm is passed and the other grasped by the hand. It was anciently used by mounted lancers in the Moorish wars, and troops of this kind were still to be found not long ago at Oran and Melilla and the coast of Grenades. They are still to be seen at Ceuta, but less often than formerly. *Adargas* are still used in the jousts with light lances (*canas*), and in the mock battles with *alcancias* (balls filled with flowers and cinders), but they are lighter and the surface is of light wood instead of leather to burst the alcancias on impact.'[3]

It is interesting to note that a German engraving of the school of Martin Schongauer, representing St. James fighting the Saracens, shows the latter in Hispano-moresque dress with *adargas* and swords with finger-rings. The conception of St. James, the son of Zebedee, as Santiago de Compostella, who appeared in shining armour and led the Christian forces to victory at the battle of Clavijo, repeats the legend of Castor and Pollux at the battle of Lake Regillus. *Adargas* are also shown carried by the Turkish forces in a contemporary woodcut of the siege of Malta. The Royal Armoury at Madrid once possessed as many as 42 *adargas*, but many of them were unfortunately destroyed in the fire of 1884, and of those which survived only three retain their decoration intact.

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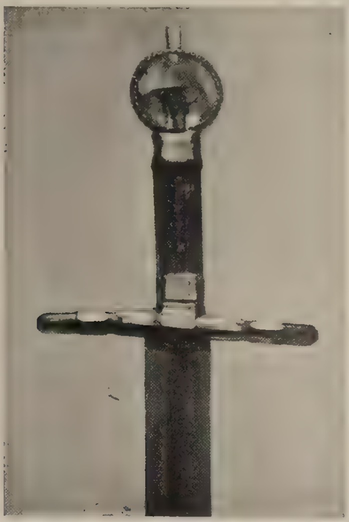
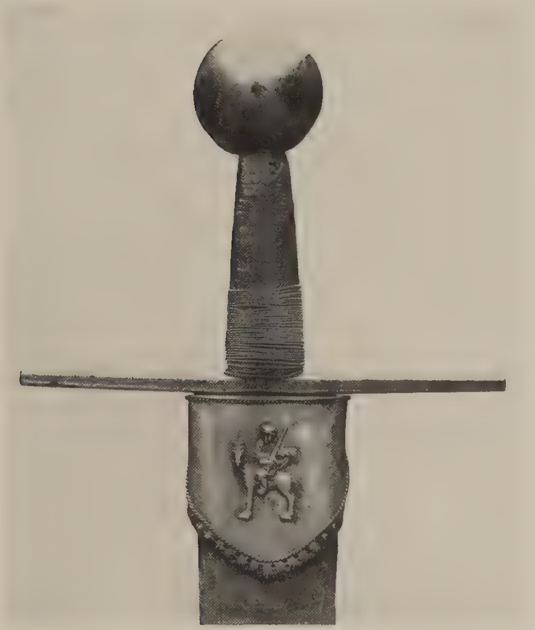
[1] Baron Davillier, *Recherches sur l'Orfèvrerie en Espagne*, 24, and cf. *ibid.*, pl. VIII.

[2] *Record*, ii, 281–7. See also Leguina, *Espadas historicas*, 1898, 1–48.

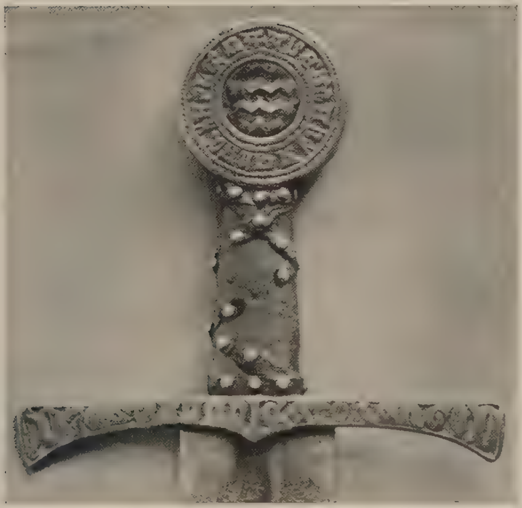
[3] There was an *adarga* made of plates of iron in the Pitt-Rivers collection at Farnham, and another is in the Bashford Dean collection in the Metropolitan Museum, New York (Cat. Kienbusch and Granesan, no. 95, pl. XLV).



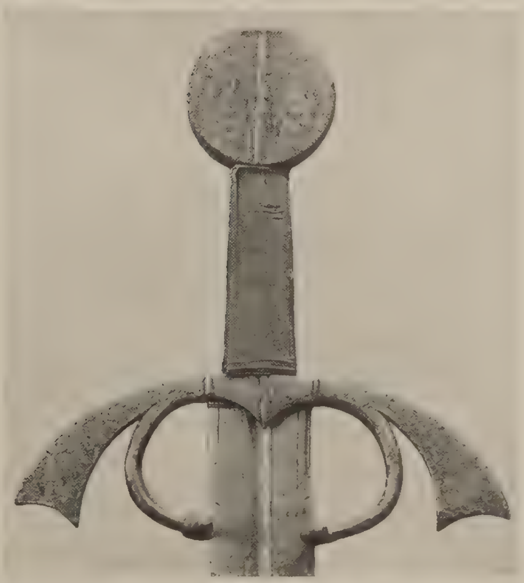
1. Sword of St. Ferdinand in the treasury of the Cathedral of Seville, thirteenth century, with crystal pommel



2. Sword, late thirteenth century (?), with later scabbard, used at the coronation of King Martin of Aragon and Sicily, 1399. Collection of M. Georges Pauilhac



3. Sword of the fourteenth century, in the Instituto del Conde Valencia de Don Juan at Madrid



4. Sword of the late fifteenth century, pommel and quillons decorated with gold azzimina. Instituto del Conde Valencia de Don Juan

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One of these belonged to Philip II, and another with the arms of Mendoza is ornamented with Mexican feather-work. Only one of the earlier ones (D 86) retains its Moorish decoration and probably belongs to the end of the fifteenth century. There is, curiously enough, an *adarga* in the Tower of London (V 3). It, too, has suffered, and the painting of the crucifix upon it has been obliterated, but an engraving in Skinner's *History of London*, published in 1795,[1] shows what it once was like. It used to be known as 'the Pope's standard' and was said to be the banner sent to Spain by the Pope on the sailing of the Armada. It is not of course a banner, but the Papal tradition has some support from the fact that there is a circular buckler at Madrid (D 76), which bears a very similar crucifix, that used to be described as the shield given by Pope Pius V to Don John of Austria after the battle of Lepanto.

The large subject of offensive arms is outside the scope of this paper, but as allusion has already been made to the Hispano-moresque type of sword, it may not be out of place to mention certain characteristic swords of Christian origin. The sword attributed to St. Ferdinand in the Real Armeria (G 22) has a hilt and scabbard embellished with jewels and geometrical tracery in filigree in the Moorish style. Another sword ascribed to him is in the treasury of the Cathedral at Seville (pl. XCI, 1), which has a pommel of rock crystal and the quillons of carnelian mounted in silver.[2] There is preserved in the treasury of Toledo Cathedral[3] a great sword with the arms of Leon and Castile upon the pommel which is ascribed to Alfonso VI, but more likely belonged to the fourteenth-century crusading Archbishop of Alcala de Menares, Don Pedro de Tenorio, which retains its scabbard. M. Pauilhac possesses a sword, beautiful in its simplicity and perfect proportions, which has a long and interesting history (pl. XCI, 2). It is said to have been given by San Olegario to Ramon Berenguer III of Barcelona by order of Pope Calixtus II. Ramon Berenguer bequeathed his horse and arms to the Order of the Knights of St. John of Jerusalem, and the sword was deposited in St. Peter's church at Palermo, where it acquired the tradition that it was the sword of Constantine. In 1399 it was sent from Palermo for the coronation of Martin, king of Aragon and Sicily, which took place in the cathedral of Saragossa on 13th April 1399. The early part of this history is doubtful, as the form of the hilt is of the thirteenth rather than the twelfth century, while the scabbard mounts with the figure of St. Martin are clearly later, and may possibly have been added at the time of King Martin's coronation.

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[1] C. S. ffoulkes, *Inventory of the Armouries of the Tower of London* i, 30.

[2] See Lequina, *op. cit.*, 75–117.

[3] Barón de los Cuatros Torres, *La Espada llamada de Alfonso VI*—Boletín de la Sociedad Española de Excursiones, March 1897 (Anno V, 49, 2–12). I am indebted to Mr. C. R. Beard for this reference.

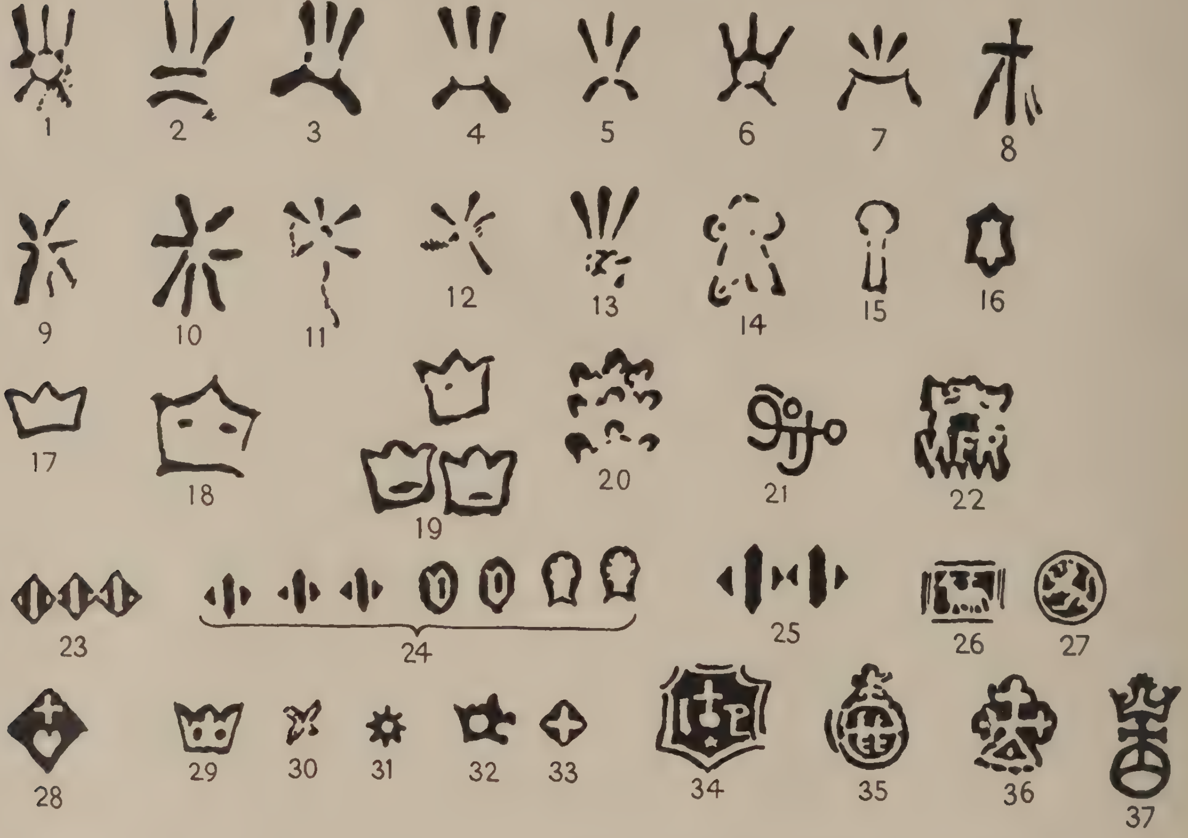

Fig. 9. Marks on Spanish armour. 1–13. Marks attributed to the workshops at Calayatud.

1. *Cabacete*, Royal Armoury, Madrid C 5.
2. *Barbote* mounted with 1.
3. *Cabacete* and *barbote*. Madrid C 7.
4. *Cabacete* illustrated on pl. LXXXVIII, 2.
5. *Cabacete* illustrated on pl. LXXXVIII, 3.
6. *Cabacete* in the armoury of the Duke of Medinaceli.
7. *Barbote*, Estruch catalogue 1198
8. Gauntlet of jousting armour, Madrid A 16.
9. Right arm of armour, *c.* 1500, Madrid A 4.
10. *Barbote*, Instituto Valencia 12.
11. *Cabacete* of early morion type, Madrid D 25.
12. Two helmets (? *cabacetes*), Estruch catalogue 591 and 1198.
13. Estruch catalogue mark 72.
14. *Cabacete* or *morrión*, Instituto Valencia 10.
15. *Barbote* in possession of Sir Edward Barry.
16. Sallet similar to Pl. LXXXVIII, 5, Instituto Valencia 7.
17. Twice on breastplate belonging to Sir E. Barry.
18. *Cabacete*, armoury of Duke of Medinaceli.
19. *Cabacete* illustrated on pl. LXXXVIII, 6.
20. Sallet, Madrid D 14.
21. Cuisse of armour, Madrid A 8; a pauldron in the Pauilhac collection (Estruch 502); bridle gauntlet, Instituto Valencia 25.
22. Armet, Madrid A 4; another in Wallace Collection 81, possibly an Italian armourer.
23. Arms of Aragon on jousting armour, Madrid A 16.
24. Two brigandines, Estruch 559 and 801.
25–33. On brigandines from the Osuna armoury, Madrid C 1–10.
34. Armour of Ferdinand the Catholic (1453–1516), Vienna pl. LXXXIX. 3.
35. Breastplate from Castle of Guadamur, late Monell collection.
36. Left arm of jousting armour, ex Osuna armoury (cf. cuisse in Cripps-Day collection, fig 7).
37. On several places on armour of Philip the Fair, Madrid A 11–15.

There are two important swords now in the Instituto del Conde Valencia (pl. XCI, 3 and 4). One is of the fourteenth century and came from San Vicente, near Lagroño, where it was known as the sword of Santa Casilda and accredited with miraculous properties. The wheel pommel is enamelled with a coat of arms, barry wavy, argent, and sable. The broad quillons of this type inscribed in Spanish are represented on several tombs.[1] The other sword represents a typically Spanish form and is signed on the blade CATHALDO ME FECIT. It was in Spain that the finger-ring, at first single and then double, first developed, and attained this form towards the end of the fifteenth century. A Spanish painting in the Museum at Bayonne shows St. Martin cutting his cloak, with his forefinger passed through one of the inner rings of a sword of this kind. The swords of Ferdinand the Catholic (G 31) and Gonsalvo de Cordova (G 29) in the Royal Armoury are of this type, and so, too, is the royal sword in the treasury of the Cathedral of Granada.

There is sometimes a tendency to think lightly of an art if it happens also to be useful. It was by force of arms that the Christians reconquered Spain, and the artist-craftsman lavished all his skill on the armour that was to protect his master's body. In war or tournament it shared his triumphs and defeats, and still faithfully records for us the semblance of his living form. If one wishes to penetrate the mind of the past one may reflect that Charles V paid larger sums for his armours in the Real Armeria than he did to Titian for his pictures in the Prado, and that he took with him several of his suits to accompany his retirement to the monastery of Yuste.

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[1] e.g. Carderera, *op. cit.*, pl. XXI and XXIII.

XIV.—*The London Customs House during the Middle Ages.*

By Miss MABEL H. MILLS.

Read 11th February 1933

THE actual working of a medieval port is a fascinating subject for study: when the port is London, and the time the fourteenth century, the interest is increased, for this is the earliest date at which the customs administration takes definite shape. The present paper was undertaken as part of the investigations into the life and works of Chaucer carried on by Professor Manly and Professor Rickert of the University of Chicago with the aid of a grant from the General Education Board. The research into Chaucer's work as controller of customs involved the collection of material of a more general character with only an indirect bearing on the poet's life. In this paper, with Mr. Manly's generous permission, is set out an account of the site of the Woolwharf with the buildings on it, a story which affords glimpses of the officials at work on the quay, of the machinery for the collection and administration of the customs in the port of London. The object of the search being limited, the present study makes no claim to be exhaustive in its treatment, though a large number of records have been examined at both the Public Record Office and the Guildhall.

Stow's *Survey of London* has so far formed the basis of all accounts of the early customs house, and no attempt has yet been made to go behind it. It is thus essential to examine his authorities.

> 'Next vnto this Stocks is the parrish church of *S. Mary Wool*church, so called of a Beam placed in the church yeard, which was thereof called Wooll Church Haw, of the Tronage, or weighing of Wooll there vsed, and to verifie this, I find amongst the / customes of London, written in French, in the raigne of *Edward* the second, a Chapter intituled *Les Customes de Wolchurch Haw*, wherein is set downe what was there to bee paide for euery parcell of Wooll weighed. This Tronage or Weighing of Woole till the sixt of *Richarde* the second was there continued, *Iohn Churchman* then builded the Custome house vppon Wooll keye, to serue for the saide Tronage, as is before shewed in Towerstreete Warde: . . .'

Stow assumes that the trone at Woolchurch Haw was for the king's customs. His authority for the first part of this statement is apparently the Liber Albus in the Guildhall muniments, for the second the Patent Roll, where the king granted Chircheman a rent of 40*s*. a year for the use of the house.[1] But a study of the Liber Albus makes it clear that the customs of St. Mary Woolchurch Haw have no connexion with the king's customs on wool, woolfells, and leather (ancient customs), or with the customs on general merchandise (petty customs). The Woolchurch Haw customs are, in fact, city dues, and so Stow's account of the history of the customs house before 1382 falls to the ground. It is necessary to inquire whether it is possible to replace it with a better founded story.

There were, in fact, two tronagers in the city of London, (1) for the city, and (2) for the king's customs. The earliest evidence for the first of these officials is found in the city's letter-books.[2] In the year 1312–13 certain citizens and woolmen came before the mayor and aldermen in the Guildhall, 'and forasmuch as they had been given to understand that the City Trone for weighing wool bought and sold was defective, and that John Powell who had charge of it was incapacitated for the office by reason of his eyesight, the said John de Bureford and others aforenamed were sworn to prove the said Trone. . . . Thereupon a certain Thomas le Aunseremakere made assay of the Tron with the weights at the Guildhall and found it true; and the woolmen aforesaid elected William Diry weigher at the Tron in the place of John Powell, the said William making oath to weigh justly, and to take no more than the charges prescribed.' But in 1344 in these same letter-books is a further entry relating to John son of John Vincent, late tronager (i.e. weigher) of wools on the Woolwharf.[3] Here are two different offices, i.e. the first for the city (presumably at St. Mary's Woolchurch Haw), the second the king's tronager for the customs on the Woolwharf. The executors of the elder John Vincent were ordered by the king to hand over his office to his successor in 1341. A predecessor, Alexander Peyntour, had been appointed by Edward II as troner of wools in the city of London in 1318, but no mention was made of the Woolwharf.[4] The history of the tronage of customs was reviewed under Richard II when a dispute arose over the payment of tronage fees.[5] The Rolls of Edward II's reign were searched at this time, and the names of Vincent's successors were given and of a predecessor, Alexander Peyntour. But the dispute under Richard II was with regard to tronage fees for the king's customs on the Woolwharf. If the king's tronager had worked originally anywhere else and had at a later date been moved on to this quay, it was almost essential for the case that this should have been mentioned in the evidence. It is not. This seems to take the work of the tronager on the Woolwharf back to Peyntour's appointment in 1318. He is the king's tronager and not the city's, since he was appointed by the king's letters patent, while the city's official was elected by the woolmen in the Guildhall. This seems to prove that the customs were collected on the Woolwharf from at least 1318. No evidence has been found suggesting that they were carried on anywhere else until they were moved across Water Lane to the present site after the Great Fire. This being the case, it seems probable that they were established on the Woolwharf from Edward I's organization of the customs in 1275.

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[1] Stow, *Survey*, ed. Kingsford, i, 108, 135 6, 226. Liber Albus (Rolls Series), i, 178-9, 245-6. Cal. Pat. Rolls (1381 5), p. 149. Harleian MS. 530, fo. 38, 38d, gives his transcription of this entry. He only seems to have known of the indenture of 4th July 1382. There are two other important entries for the ancient customs and one for the petty customs houses on this Patent Roll.

[2] Calendar of Letter-Books E, pp. 19-20.

[3] Cal. Letter-Books F, p. 112.

[4] Cal. Pat. Rolls (1317–21), p. 240; Cal. Fine Rolls (1307–19), p. 384.

[5] Rotuli Parliamentorum, ii, 351; Memoranda Roll K. R. (E. 159) 156 Trinity Recorda, London, De Willelmo Walworth.

But where is the Woolwharf, or Woolkey? It is on the north bank of the Thames, rather nearer the Tower than London Bridge, and so was peculiarly well placed for collecting the customs from ships in the medieval port. To the north was Thames Street with the houses and business premises of some of the wealthiest citizens in medieval times. Asselyn's Wharf, described by Mr. C. L. Kingsford in his paper to the Society on 'A London Merchant's House and its Owners',[1] was to the west of it on the other side of Water Lane, or Water Gate as that end of the lane was often called (fig. 1).

On the east of the Woolkey was the Stone Wharf belonging to the Salisbury family. At the present time, Asselyn's Wharf has become the modern Customs House, the Woolkey is now the 'Old Wool Quay', and the Stone Wharf the 'Customs House Quay'. The last two are occupied by Messrs. William H. Muller and Co. (London), Ltd., Batavia Line.

The site of the medieval customs house having thus been established from at least the middle of Edward II's reign, it is now possible to trace the history of the houses, for there was more than one, from the time of the first Enrolled Customs Accounts, namely 1294–7, to show such further evidence as exists to prove that the customs were actually being administered on this site. There is a great volume of material with regard to the history of this branch of the royal administration in the fourteenth century, but the interest in the present paper centres in the site and the buildings rather than in the work, though glimpses are afforded of this side also. Now in the accounts for 1294–7[2] there is an entry for the rent of the house for three years, and for certain other business, the total being £12. This probably means 60*s*. a year for rent and £3 for the other business, since the rent was 60*s*. a year at Michaelmas 1304,[3]

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[1] *Archaeologia*, vol. lxxiv, pp. 137–58.

[2] Enrolled Customs Accounts (E. 356), Roll I, m. 25; Customs Accounts (E. 122), 68/3, m. 3.

[3] Enrolled Customs Accounts, Roll II, m. 1d.

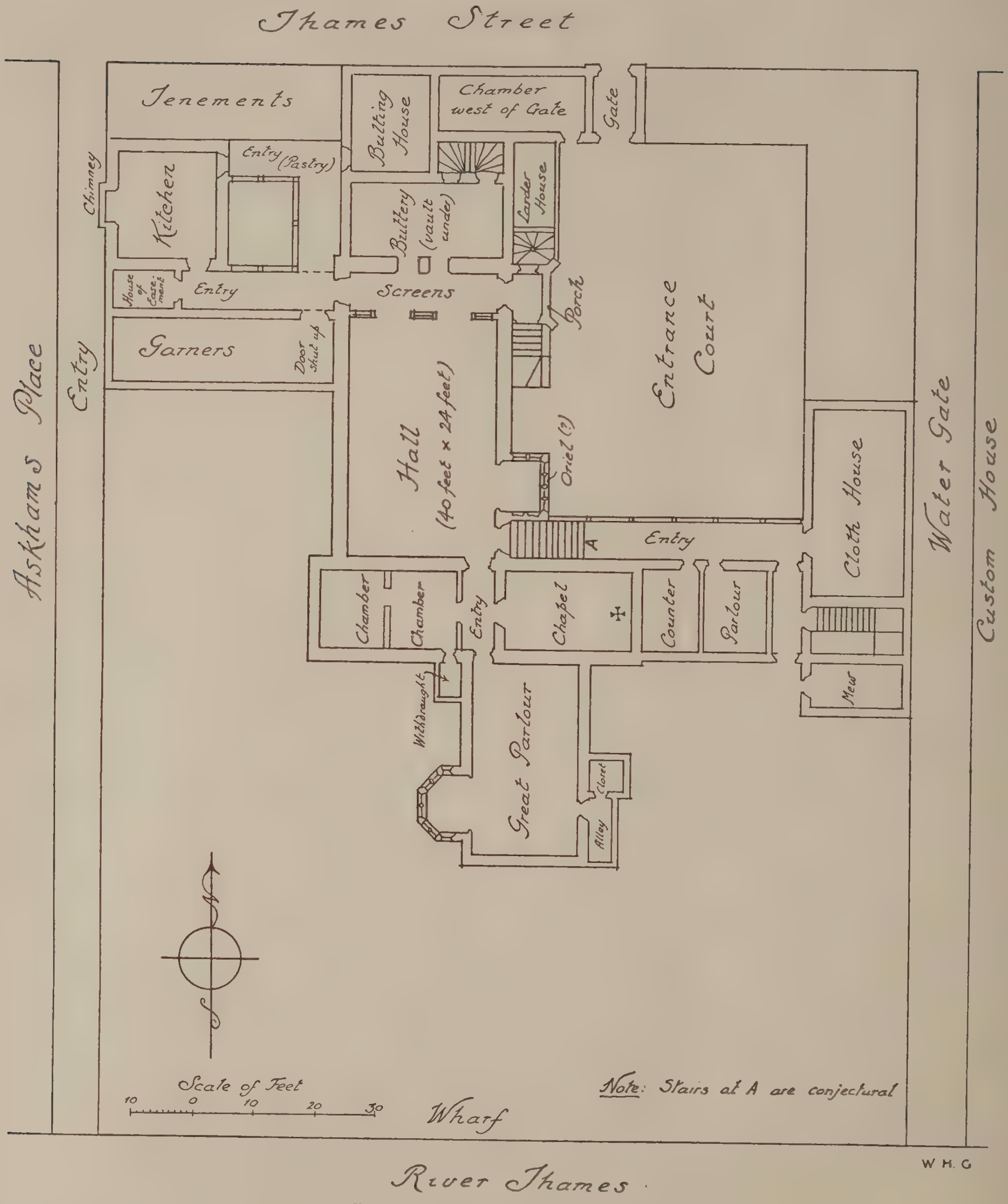

Fig. 1. Plan of Asselyn's House.

and was not altered until Chircheman rebuilt the premises between 1382 and 1386. It is not stated where this early house was, but, in view of the evidence given above, it seems probable that it was on the Woolwharf. The tronage was an integral part of the customs organization, and it was established on this site by 1318: it will be shown later that the customs house, for which 60*s.* rent was paid regularly, had been on the Woolkey for a number of years in 1376–8. This would seem to show not only that the tronager was at work there, but also that the whole administration was carried on in a hired house on the site from at least 1318.

The earliest mention of the Woolwharf itself is in 1325, when an inquest was held on Nicholas Crabbe of Flanders who had been slain by another Fleming there.[1] A reference in the Hustings Court Wills for 1327 is misleading,[2] as it seems to place the quay in the parish of St. Dunstan's towards the Tower, whereas it has always been in All Hallows', Barking. The explanation seems to be that the testator only intended to indicate the situation of his tenement as being in the neighbourhood of the Woolwharf.

The history of the wharf between 1325 and 1350 is not so clear as one would wish to have it. The first glimpse of work on the quay is when the mayor on 22nd January 1334/5 heard a plea in which the sheriffs were attached for trespass for having attached 20 sarplars of wool on 'le Wollewharf'.[3] They pleaded that according to the custom and liberty of the city no merchandise ought to be sold among foreigners within the city for resale under penalty of forfeiting the thing sold. The story they told was that William atte Hall of Briggenorth was selling wool to Geoffrey atte Rye of Bruges in Thomas Perle's house on this wharf when the sheriffs hearing of the transaction descended on them, found the wool lying on the wharf, and attached it. Both men were merchant strangers. They tried to defend themselves by saying that the merchant mark on the wool belonged to Thomas Perle and not to William as the sheriffs declared. Perle was not only a well-known citizen, but also probably an officer on the wharf, since he never appears to have owned any house there and was certainly controller from 20th January 1341 to 16th March 1346.[4]

Four years later inquiries were being made into a case of smuggling, in which the wool was assembled by night on Curtis's wharf, and, careful arrangements having been made for its porterage, was loaded after dark on to hakeboats belonging to foreigners from Sluys and taken overseas without paying customs.[5] Two inquisitions into this were held, the first of which took place on

[1] Sharpe, Calendar of City Coroners' Rolls (1300–78), p. 129.

[2] Calendar of Wills of Court of Hustings, London, Part I (1258–1358), p. 319.

[3] Cal. Letter Books E, p. 262.

[4] Cal. Pat. Roll (1340–3), p. 83; *ibid.* (1345–8), pp. 59–60.

[5] Extents and Inquisitions (E. 143) 11/1, no. 31.

the Woolwharf. In the second, heard at Westminster, the jury were twelve porters from this quay. Unless the Woolkey was the centre of the London customs at that time there was no reason why the case should have been taken there, while the fact that there were sufficient porters on the wharf to make it possible to select a jury from their number indicates a fairly elaborate organization. Some sixteen months later, in January 1341, when another inquisition was held on the Woolwharf, it was found that the customs had been duly paid on the wool loaded on a ship called *la Trinite* of London by Thomas Perle and other merchants.[1] Here are definite cases connecting the Woolkey with the collection of the ancient customs. In April two king's sergeants were arresting wool in the city: they were to take the wool of the merchants of Almain to 'le Wollequarf', to be placed in some house there at the king's cost.[2] This suggests that more than one house on the quay was at the king's disposal. In 1344 (the year in which the reference is made to 'John son of John Vincent, late tronager of wools on the Woolwharf'), Francis Baudwyn was found, in an inquisition before the mayor, to have placed wheat on board Peter Lambyn's ship, the *Godeyer*, at this quay, for export to Flanders, and to have paid the customs the same day.[3] And this was a payment of petty customs.

In the above evidence no one extract furnishes definite proof that the customs business was carried on as a whole at the Woolwharf in the first half of the fourteenth century, but we have seen that the tronager was certainly established there, and in the cases given above there is either a clear reference to the collection of customs, or to the export of wool or other merchandise. To those who have knowledge of the work in the port at the end of the century, when it is possible to assemble a detailed picture, the extracts are more suggestive, for people engaged on their business about the wharf were doing precisely the same things that their successors did later. The first undoubted references to the customs administration being established on the quay make it clear that the settlement was not of recent date.

The last example given above refers to the export of wheat, a petty customs commodity, which suggests that, though the name of the wharf indicates only the transactions in wool, import and export dues on other merchandise (the petty customs) were, in fact, also collected here. This is confirmed by a city regulation in 1350 'that carts which bring wares coming from beyond sea shall take, from Wollewarfe to Chepe, 4*d*.'[4] No other wharf from which wares from beyond sea were carted is mentioned in the ordinance, so that we may assume that merchandise from beyond seas was normally brought to this landing-place before being taken to Chepe for sale. Thus both ancient and petty customs may be assumed to be administered from this spot in the second quarter of the century, if not earlier.

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[1] Calendar of Miscellaneous Inquisitions (1307–49), no. 1762.

[2] Cal. Close Rolls (1341–3), p. 64. The phrase used is *in aliqua domo ibidem.* Cf. also p. 178.

[3] Cal. of Miscellaneous Inquisitions (1307–49), no. 1909.

[4] H. T. Riley, *Memorials of London and London Life*, p. 254.

With the second half of the century comes more definite knowledge. But even so, it has to be built up by fitting together the parts of a mosaic.

Between 1356 and 1366 there emerges for the first time clear proof of the connexion of the Woolkey with the administration of the customs, and it emerges in such a form as to leave no doubt that the officials had been carrying on their work there for a considerable time. There is no explanation that the wharf had been newly taken over; that only part of the customs organization, the tronage, had been established there previously; or that any other site had been used for the customs house. This all tends to confirm the conclusions already drawn.

In 1356 for the first time the officials appear busy at work. The king ordered the collectors of petty customs to de-arrest a bale of cloth belonging to John Copyn and William Tourneye, two Flemish merchants: they were to do it by means of an indenture containing the number and value of the cloths. The collectors had previously made a return that the arrest had been made by the king's searcher[1] at the port, because the bale was 'landed on the quay of the Wolwharf under John's seal, neither John nor William being there nor anyone else for them to pay the customs due thereon'.[2] This was common procedure at the end of the century. About this time the king informed the sheriffs that he understood that divers boats came 'to the Wollekaye in the Thames and there lay nightly under the great ships, the boats having been laden with wool and other merchandise in suspected places'. They were to make public proclamation in the city and elsewhere that no boats should lie or tarry by night in such places, nor at any time when there should be sinister suspicion of them, against the orders of the collectors of the customs.[3] Clearly the king and the council suspected, not without cause, that these boats were engaged in smuggling—a not uncommon practice. About the same time Edward III ordered the collectors of petty customs not to suffer merchandise of drapery, leather, mercery, spicery, napery, wax, and the like 'to be opened, customed or delivered to merchants until they first come to the port of the "Wolwhartf" where wools and other merchandise are to be laded, unladed and customed, and until the clerk and keeper of the great wardrobe has had view thereof, and taken to the king's use what he shall think meet '.[1] The phrase 'port of the Wolwhartf' illustrates the extent to which the customs administration had become identified with the conception of the port, even to the two terms being regarded as identical in an official record.

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[1] The Close Roll has the word '*scrutator*' which is the word usually used for a searcher of customs.

[2] Cal. Close Rolls (1354-60), p. 322.

[3] K. R. Memoranda Roll (E. 159), 132, Brevia irretornabilia, Michaelmas term.

The separation of the ancient and petty customs administrations by the hiring of a second house for the petty customs took place in the exchequer year 1365–6. This is the first reference to buildings (other than the payment of rent and some early details of furniture). The letter is of sufficient interest to bear quoting in full:

> Rex Thesaurario & Baronibus suis de scaccario salutem; Cum magne & parue custume nostre in portu London' ante hec tempora in vna domo prope portum predictum colligi consueuissent et iam propter diversa impedimenta in vna domo colligi non possunt vt accepimus per quod preceperimus Collectoribus parue custume nostre in portu predicto quod vnam domum sufficientem pro custuma illa colligenda conducerent ijdem que collectores quandam domum pro dicta parua custuma colligenda pro quadraginta solidis per annum conduci fecerint sicut per ipsos Collectores intelligi nobis datur; vobis mandamus [to make the necessary allowance] . . . Teste me ipso apud Westmonasterium xvij°. die Nouembris anno regni nostri tricesimo nono. Hoc breue allocatur in compoto Petri Sterre & Ricardi Normañton' Collectorum parue custume in portu London' de parte anní xxxix. [Marginal note] alloc'[2]

Thus there was not only a house which had previously been used for the collection of both customs, but also, though this is the first concrete reference to it, the work carried on there had become so great that it was no longer possible to continue the work in a single building. The allowance of 60*s*. rent had been made each year on the accounts from the beginning. The original customs house is here described as being near the port, and evidence will be given later which shows that it was on the wharf itself. As to the new petty customs house, it should be noted that Sterre and Normanton only held office together from 6th July 1365 to 30th January 1366,[3] so that the date at which the house was first hired can be confined within narrow limits. In the Enrolled Customs Accounts, petty customs, there appears a new item in the account for the period 6th July to Michaelmas 1365:

> Et eisdem Collectoribus pro vna domo conducta pro dicta custuma colligenda et imponenda pro anno xxxix° et vnde prius non fiebat allocat'—xls. . . .[4]

Since the allowance was made for a full year, it is clear that the house must have been hired from Michaelmas 1364, or very soon after that date. The account for 41–2 Edward III defines the use of the house as 'pro compotorio suo de hiis que ad officium predictum pertinent'.[1] The rent of 40*s.* was later reduced to 33*s.* 4*d.* An allowance was made to Richard Baret the controller of 12*s.* 2*d.* for the making of a counter for the new petty customs house, that is an abacus or more probably a table that could be so used when required by means of the simple expedient of spreading a ruled cloth over it.[2] Baret at the same time received a special payment for his reward, and for expenses incurred by him in his office in the preceding year. This is quite a distinct payment from the annual reward to the collectors and controller of ancient customs: it was made to him as controller of petty customs, and the entry appears immediately above that for the counter, so that it seems reasonable to assume that it is for the work which he had to do in the separation of the two establishments.

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[1] Cal. Close Rolls (1360–4), p. 26.

[2] K. R. Memoranda Roll (E. 159), 142, Brevia directa Baronibus, Michaelmas term, 40 Edward III, 17th November 1365, *Pro Collectoribus parue custume in portu London'*.

[3] Cal. Fine Rolls (1356–68), pp. 308, 325.

[4] Enrolled Customs Accounts (E. 356), 9, m. 34.

Nothing of interest happened in the next ten years as far as the buildings on the wharf were concerned, though the history of the customs administration in this time tells a different tale. The records of the Good Parliament in 1376 for the first time establish unmistakably the fact that the whole of the customs organization was on the Woolwharf, since the parliament roll records the complaints of the London merchants about certain impositions and charges on wool and woolfells at the 'Wolkey' in the port of London, including the fees for tronage, chalking, for storage over night in the 'meson de pois', wharfage, God's pennies, and the cocket.[3] These are all customs charges. The inclusion of the fees for both the tronage and the cocket proves that tronager, collectors, and controller were all at work on the quay. These are just the officials who should be on the quay if the whole customs organization was established there. A year later Richard Baret was appointed keeper of the house belonging to the ancient customs on the Woolkey, receiving the same fees and rewards as others who held this office before him had had.[4] These two entries taken together make it absolutely certain that the ancient customs were established on the wharf itself, that they had been there for a considerable time before

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[1] K. R. Memoranda Roll (E. 159), 143, Adhuc Brevia Directa Baronibus, Michaelmas Term, m. 18. A house for the tronage of wools was built about the same date at Newcastle-on-Tyne. Cal. Close Rolls (1364-8), pp. 251–2 (2 letters).

[2] Issue Roll, 425, m. 17. I have the pleasure of thanking Professor Rickert for this reference.

[3] Rotuli Parliamentorum, ii, 351.

[4] Patent Roll I Ric. II, pt. 1 (C. 66/297), m. 2. concessimus ei officium custodie domus pertinentis magne custume super le Wollekeye London' Habend' quamdiu nobis placuerit percipiendo in officio illo talia feoda et rewarda qualia alij qui officium predictum ante hec tempora habuerunt perceperunt & qualia eidem officio pertinent. Cal. Pat. Rolls (1377-81), p. 36; Cal. Close Rolls (1377-81), p. 29.

1376. The writ for the separation of the two customs quoted above seemed to imply that the house was only near this quay: this shows that the earlier writ must mean that the building was actually on it. But up to 1365 both customs had been administered together. A study of the Patent Rolls shows that up to 1375, though the two branches might have different collectors, they had a common controller, and that he had to remain constantly at the ancient customs quarters. This would only be possible if the two customs houses were near each other. But both the adjacent wharves were occupied: the history of Asselyn's wharf has been traced by Mr. Kingsford,[1] and the Stone Wharf was in the occupation of the Salisbury family.[2] As it would have been impossible for the controller to attend to both branches if they were established at any distance apart, this seems to necessitate the petty customs being on the Woolkey.

The next stage in the development of the wharf was the building of the Chircheman houses, negotiations for which began in 1378. Two other points are more satisfactorily examined before dealing with these. First, the customs house which Chircheman pulled down can be described to some extent, and it is possible to furnish it in detail. The site is described in Chircheman's deeds as 'the quay called "Wulwharf" with houses, cellars, solars, etc. . . . lately purchased of Richard Turk citizen and fishmonger, lying between a quay late of Thomas de Salesbury called the "Stonewharf" towards the east and a wall by the "Watergate" towards the west and extending from the high street on the north side to the river Thames'.[3] The Latin phrase *cum domibus superedificatis* makes it clear that the houses were on the wharf itself. This description may be merely formal, since it frequently occurs in the city records, but it would seem to conform with the fall of the land and the needs of the officials at work on the quay. The petition to the Good Parliament, to which reference has been made above, mentioned the 'meson de pois'. This is clearly the tronage house, an integral part of the Chircheman house later, and an essential part of the customs administration. The phrasing of the deeds shows that there was more than one house on the wharf in 1378, that the houses had two storeys above the cellars and only two, since the Chircheman house for the ancient customs had three, and when it was completed the rent was increased on account of the extra storey and accommodation.[4] Moreover, houses that were old enough to require rebuilding in the years 1382–6 must have been in use for a considerable period before 1377, even allowing for the comparatively short life of medieval houses. There is no evidence which suggests that the buildings were destroyed by the peasants in 1381, but rather the contrary. Thus there were at least two houses on the Woolwharf before 1378, one of which was used for the ancient customs, another almost certainly for the petty. They had cellars, a tronage house, and an upper storey. It may be suggested that the cellars would be used for the storage of goods, that the upper storey was used as a counting-house for the collectors, the controller, and the collectors' deputies or clerks.

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[1] *Archaeologia*, vol. lxxiv, pp. 137–58.

[2] K. R. Memoranda Roll (E. 159), 132, Communia Hilary Term, and boundaries of Woolwharf site.

[3] Cal. Close Rolls, 1377–81, p. 113. The 'etc.' of the calendar only covers the usual *appurtenances* phrase of the deed. The other deeds for Chircheman's new house all give this description.

[4] See p. 323.

It is possible to furnish these houses, for the early customs accounts give interesting details of equipment.[1] Canvas was bought for the windows. There were two trones for weighing (the one large, the other small), with the necessary ropes and weights. The first must have been for weighing the wool in bulk. A large old trone can still be seen at Woodbridge in Suffolk.[2] It is built out from a house, and if the customs trone was of similar construction it would take up a good deal of room. The smaller one may have been for general merchandise. These, with the wool and the merchandise, would take up most of the available space in the tronage hall. Possibly there was a counter for such preliminary clerical work as had to be done whilst the weights were being taken. There were also balances for weighing money, which would seem to bring us to the furniture of the counting-house. For it were bought ink and parchment for the account-rolls and for the cockets. There were two chests for keeping the rolls and tallies in, and dishes in which the money was placed when it was paid over by the merchants and weighed on the balances. Canvas and thread were bought for pokes to pack the wool, pixes and hanapers for storing letters. The exchequer or abacus for the counting-house was repaired and improved in the period 1294–7. In the following years a new counter was provided for placing the money on, and a chest for storing it. There were also benches. In 1310 another counter was bought for both customs. This suggests that there were two counters and an abacus. Then there was the cocket seal which was made of silver. The matrix of the seal for Edward I's reign, that actually in use with this furniture, is still preserved in the British Museum.[3] In addition, though no reference has been found to it, there must have been some arrangements for heating water with which to soften the wax before sealing. Wax would be needed in fairly large quantities, since the officials had other letters and writs to send out besides the actual cockets. Three small *signa* were bought for the merchants, but their precise use has not been ascertained. In one account three clerks are mentioned as being at work, in another there were only two. In addition there was a boat with sails for the boatman: this was probably used by the searcher, the official responsible for the prevention of smuggling. When the latter seized goods, he had to hand them over to the collectors or controller. It would be essential to be able to lock them up safely and apart from the wool and merchandise which was being customed. The cellars may well have served for this purpose. Thus it is possible not only to get an idea of the customs house in the early fourteenth century, but even to furnish the different departments of the thirteenth-century building.[1]

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[1] Customs Accounts (E. 122), 68/3, m. 3; Enrolled Customs Accounts (E. 356), Roll 1, m. 25 and 25d; *ibid.*, Roll 2, m. 1, 1d, 2. Cf. also Pipe Roll 233 (1387–8) Adhuc Item London dorse for furniture at a later date. Professor Rickert kindly furnished this reference.

[2] Miss L. J. Redstone drew my attention to this, and Mr. V. B. Redstone gave me particulars of the way in which it worked.

[3] Birch, *Catalogue of Seals in the British Museum*, no. 1157, is the seal taken from the matrix in the Department of Medieval Antiquities.

The next point to be considered is the general lay-out of the wharf as it was during the medieval period. This is not easy, and can only be deduced from evidence in much later maps and records. The subject is discussed here because a knowledge of the size and arrangement of the site makes it easier to understand the building of the Chircheman houses. In 21–2 Elizabeth, George and Arthur Needham proposed that the Old Wool Quay should be added to the Customs House Quay, that is to the Stone Wharf of the medieval period.[2] Their memorandum is of interest, for it shows that the quays were let out on long leases by the crown, and that the lessees made their profits from the cranage, lighterage, and wharfage. The rent for the two customs houses was at this date £8 6*s.* 8*d.* But the most important point is the description of the 'wharfe of old woull' key' as 'being made of Tymber and is nowe so old and Rotten that of nessessite yt moste be newe bylte wythe hard ashelerstone'. The sovereign had previously been responsible for the repairs. The customs house quay here is that immediately east of the Wool Quay, and not that on which the present customs house is built. Thus it is certain that the Wool Wharf was built of timber in the sixteenth century. Since in medieval times the next wharf to the east was distinguished as the Stone Wharf,[3] it seems fairly reasonable to assume that the Wool Wharf was of timber at that date, and this is all the more likely since the present wharf is also made of baulks of that material. After the Great Fire a survey of the wharves was made in 1667.[4] From this we learn that the 'Wooll' Dock was 61 ft. from east to west,

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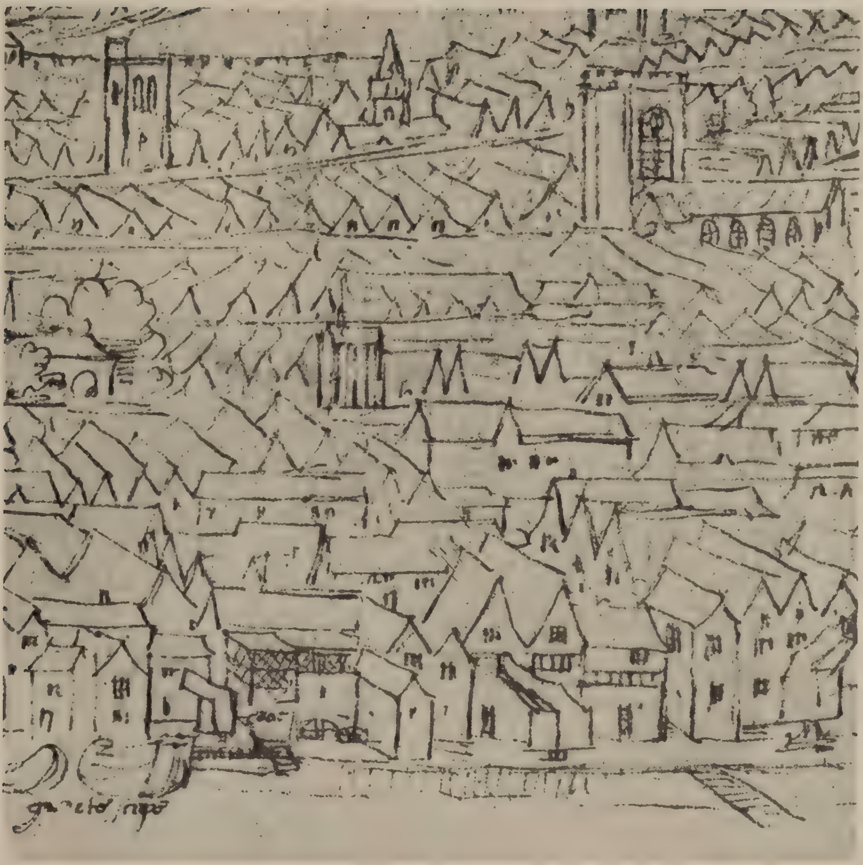
[1] The evidence for the furniture is taken from the original Customs Accounts (E. 122), 68/3, m. 3; Enrolled Customs Accounts (E. 356), 1, m. 25; *ibid.*, 2, m. 1.

[2] Exchequer Miscellanea (E. 163), 14/4.

[3] Cal. Close Rolls (1377–81), p. 113.

[4] Special Commissions (E. 178), 6318.



1. Portion of Wyngaerd's map showing Customs House

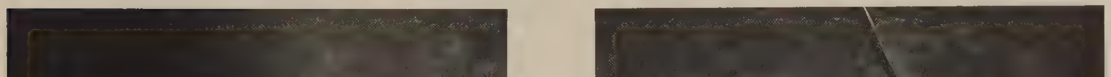


Photo. Edmund Yates

Photo. Edmund Yates

2. The vaults under Messrs. Muller's premises

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and from the Thames northwards 40 ft. The Custom House 'Key' was from east to west 202 ft., with 6 ft. extra at the east end thereof between that and the 'Wooll' Dock, being a common sewer arched over which was not to be used in building the new customs house. There were to be stone stairs to the west side thereof for wherries and passengers, and not for goods and merchandise. There are steps of this type at the end of Water Lane to-day. It is clear that this is the sewer at Water Lane, since the reference is clearly to the new Customs House which was to be built, and not to that destroyed by the Fire. Was this sewer running down Water Lane in the medieval period? Wyngaerd's map shows a stream or sewer of some kind (pl. XCII, 1). This has an important bearing on the arrangement of the Chircheman houses. When the scale of Ogilby's map (1677) is worked out (fig. 2), it shows the Thames Street frontage to be exactly 61 ft., thus agreeing with the Survey.[1] The depth from the river as shown by Ogilby requires some explanation, for this map shows it to be 104 ft. at Water Lane, and rather over 60 ft. at the east end. The explanation is that (1) Thames Street and the river are not parallel here, and (2) there was a projection about 30 ft. square into the river at the Water Lane end. Along the river front there is a section marked 'New Key', the breadth of which at the west end is 40 ft. A comparison of Ogilby with Greenvil Collins's map (1684) suggests that the river edge of this 'new Key' represented the low-water mark. The Survey shows that it was proposed to raise the Wool Quay 1 ft. 9 in. As the lay-out of the city before the Great Fire did not differ very greatly from that of medieval London, it is perhaps possible to draw certain inferences from the above summary, namely that in the medieval period there was a wooden quay roughly 61 ft. along Thames Street and some 60 ft. to 70 ft. from Thames Street to the river.

One other piece of evidence exists which may throw light on the medieval quay. The present Old Wool Quay is a modern building, but under it is a vaulted cellar of some antiquity. Messrs. Muller kindly gave every facility for the study of this, and as a result two photographs were taken of it (pl. XCII, 2) and a scale drawing made. The evidence of this cellar may prove important in the hands of an architectural expert with knowledge of the later history of the quay as well as of the facts set forth here. A careful comparison of the 25-inch Ordnance map with the plan and with Ogilby shows that if information is to be gathered along these lines, it can only be done by careful handling by experts, but if done it might furnish the clue to the details of the medieval customs house. The following theory is put forward to explain the facts as at present known. The length of the vault along Thames Street is about 10 ft. shorter than the length of the site as shown in Ogilby's map. This may be taken up in the width of the lanes at either end, namely Water Lane and that between

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[1] I have to thank Capt. F. C. Read, F.S.I., for his kindness in preparing a plan of this section of Ogilby as a scale drawing (fig. 2).

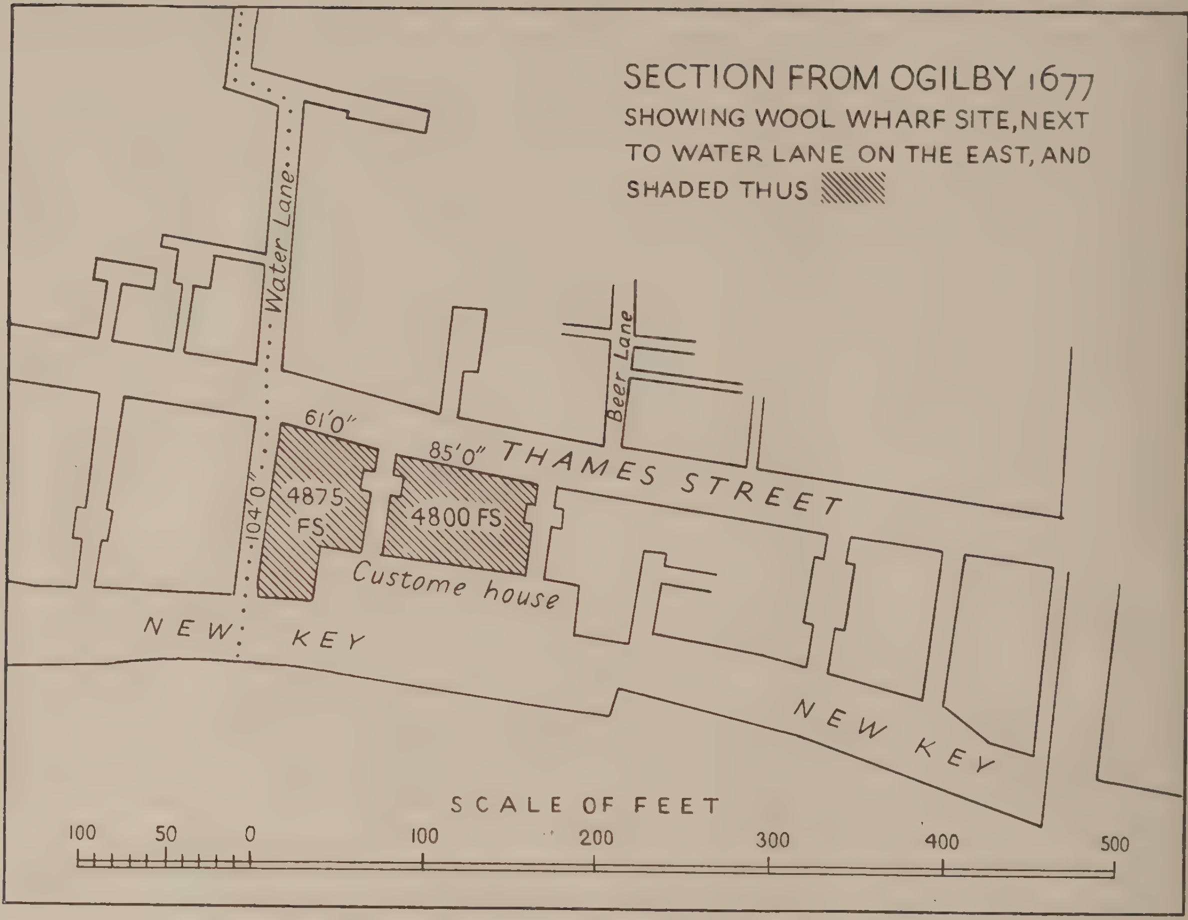
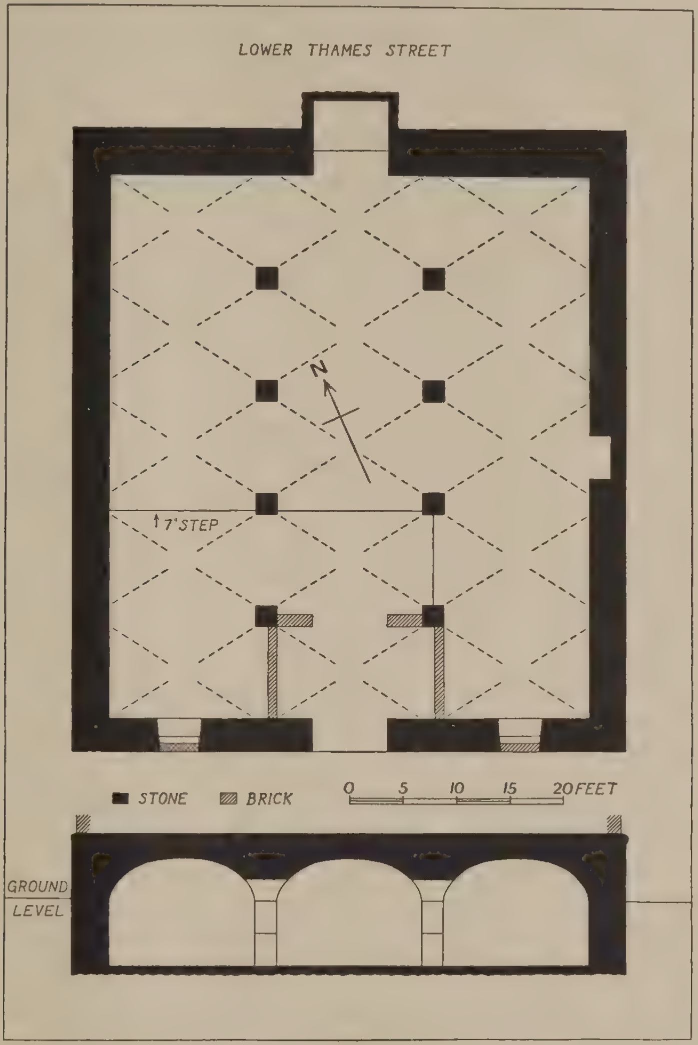


Fig. 2. Section from Ogilby's map of 1677.

the quay and the Customs House (Old Stone Wharf) Quay. Or there may have been some rectification of the line of Thames Street after the Fire. The foundations of the medieval customs houses may have been wider than those of the present vault, but from what we know they need not necessarily have been so. The upper solar of the Chircheman house implies a wider top storey than a house built on modern lines over this vault would normally have, but the practice of building the upper storeys of medieval houses wider than the ground floor may account for this, especially if, the petty customs being a storey lower, the second storey of the ancient customs house (that for which the dimensions are given) was built out over this to some extent. The facts suggested here will be explained in the description of Chircheman's houses. But the medieval quay probably had three houses on it, though it is difficult



G. C. Dunning mens. et delt.

Fig. 3. Plan and section of vaulted cellar on Messrs. Muller's premises.

to give the evidence for this shortly; and the impression conveyed by the nature of the site and the work which had to be done in these houses is that the most convenient, if not the only practical, way in which they could be arranged would be with their length down the site, that is with the ends facing Thames Street and the river. Now the cellar also shows three bays, each of them narrower than the 21½ ft. of the Chircheman upper storey for the ancient customs house. The vaulting of the three bays is borne on two sets of four pillars, running down the wharf in the way suggested above, and as shown in Wyngaerd's plan in 1543. An eighteenth-century plan confuses the issue, because it shows an entirely different arrangement of the site. Mr. Clapham dates the vaults as late seventeenth-century, and says the elliptical groins are characteristic of Wren's time. If that is the case this later plan has no significance with regard to the arrangement of the site in the seventeenth century or in the middle ages, if it disagrees with that arrangement. The point of this rather long digression is that the vault under the Old Wool Quay appears to have been built by Sir Christopher Wren, or during his period, and that, since he and the builders of London after the Fire frequently used the old foundations, it is not impossible that these vaults give the line of the medieval cellars mentioned in the charters relating to the purchase of the Wool Quay by John Chircheman in 1378. At least there is certainly a curious and yet evasive relation between the fourteenth-century buildings, the Wyngaerd plan, Ogilby's map, and the vault on the Old Wool Quay site. The exact solution has so far not been found, but it is rather difficult to believe, after a careful examination and balancing of all the evidence, that the line of the cellar bears no relation to the old foundations. The question remains: is there any relation between the medieval and the modern?

So far the general line of investigation suggests three medieval buildings on the Wool Quay: the house for the ancient customs, for the petty customs, and another which is outside the scope of the present paper, but which was used for the petty subsidy in 1386–7.[1] To sum up, the suggestion is that the medieval wharf was about 70 ft. from street to river, and 61 ft. along Thames Street; that it was of wood, and that there may have been an open sewer down the lower end of Water Lane.

With the building of John Chircheman's two houses on the quay, the plan of the building takes a rather more concrete form. The negotiations for the purchase of the property began in 1378, but it was not until 4th July 1382 that an indenture was drawn up between the king and Chircheman concerning the house for the ancient customs.[2] The arrangements were confirmed by letters patent on the 15th, and it is possible, from the variation in wording, that the king took possession in the interval. The house is described as being 'newly built for the quiet of merchants' on his quay called 'le Wollewharf'; it was

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[1] Professor Rickert found this reference in Pipe Roll 233 under the account of John Organ and John Chircheman, collectors of the petty subsidy, under *Adhuc Item London.*

[2] Cal. Close Rolls (1377–81), p. 113; Hustings Roll 106 (150); *ibid.*, 108 (14), 24; Cal. Pat. Rolls (1381–5), p. 149, 154. The Cal. Pat. Rolls, p. 149, omits the 'collectors', but they are duly entered on the original roll.

'to serve for the tronage of wools in the port of London', and the king granted 'that during the life of John the tronage shall be held during pleasure in the house, and the king shall have easement therein for balances [and] weights', and a counting-house[1] (*computatorium*) 'for collectors, controllers and other officers of the tronage, with free ingress and egress, and shall pay to the said John 40*s.* a year for the same'.

By July in the following year important additions had been made. The privy seal warrant, and the patent based on it, give the best description of the customs house before 1399[2]:

> . . . Nos pro eo quod idem Johannes preter dictam domum pro tronagio ordinatam & preter solarium supra eandem domum pro dicto computatorio dispositum nobis concesserit quandam camerulam pro latrina dicto computatorio annexam necnon solarium desuper computatorium predictum quod quidem solarium continet triginta & octo pedes in longitudine & viginti & vnum pedes & dimidium in latitudine & in quo quidem solario sunt due camere & vnum garitum vt dicitur Habend' & tenend' nobis & heredibus nostris pro aisiamento ampliori dictorum Custumariorum Contrarotulatorum clericorum & aliorum officiariorum tronagij supradicti durante vita prefati Johannis. . . .

Thus there was a tronage house with a solar over it for the counting-house. A certain little chamber for a latrine was annexed to the counting-house. Then between 1382 and 1383 a second solar was added on top which was 38 ft. long and 21½ ft. broad. In this second solar, that is over the counting-house or first solar, there were two chambers and a garret. An extra 40*s.* was paid for the additions, bringing the rent up to £4 a year, or £1 more than for the old house. The record farther down uses the phrase:

> necnon pro dictis camerula computatorio annexa & camera supra computatorium illud & aisiamento in eisdem de exitibus custumarum nostrarum in porto predicto. . . .

This, taken with the context, seems to imply that the upper solar was for storing or receiving the actual money from the customs. But certain entries in other records show that the collectors, at least sometimes, stored it in their own houses.

By 24th September 1386 Chircheman had built a second house for the petty customs at great expense. This was also on the Woolquay, and was 'for the service of the king's petty custom in the port of London and all his ministers and officers'. The grants laid down that these customs were to be collected and kept there during Chircheman's life. The rent remained at the old 33*s.* 4*d.* a year, suggesting that the new house was the same size as its predecessor.[1] Before the end of the reign these houses had to be repaired, in 1390, by Chaucer, as clerk of the works, and again in 1395 when the wharf was raised.[2] Also by 1399 negotiations had already begun for the transfer of the premises to John Shadworth, though the actual transfer was not completed until after Henry IV's accession. They subsequently passed to William Lynne and Alice his wife, and later to Alice and her son John.[3]

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[1] This seems a better translation than 'compter'.

[2] Cal. Pat. Rolls (1381–5), p. 299, Chancery Warrants (C. 81/481/2867). The quotation has been examined on the Patent Roll itself and compared with the warrant. The Patent Roll is the best.

A suggestion may be made as to the arrangement of the houses on the wharf. For this it is necessary to compare what has been said above with Wyngaerd's map. This shows steps at the west side of Water Gate, and a building over the gate itself. This building, and the fact that there appears to have been running water here, and possibly a sewer down the lane, suggest that the house for the ancient customs may have been next to Water Lane, and in this case the little chamber over the lane may have been the latrine on the same floor as the counting-house. Mr. Leftwich, in his article on the customs house,[4] suggests that the house shown by Wyngaerd may be, in fact, the house which Chircheman built. That would make it rather more than 150 years old at that time. Whether this is the case or not, the latrine would require adequate drainage, and if this part of the customs buildings adjoined Water Lane it would fulfil the necessary requirement. In this case, and if the modern cellar represents the area covered by the medieval buildings, the second solar (over the counting-house) might project over Water Lane on the one side, and over the single-solared petty customs house or the other house, which was later used for the petty subsidy. Did the garret go over the latrine, or did it represent the fall of the roof and run over the whole building above the second solar? The petty subsidy house proves the existence of three houses on the wharf, as has been hinted earlier. Whether the above suggestions are true or not, the fall of the ground and the size of the site make it essential that the 38 ft. of length of the ancient customs house should run down from Thames Street to the river. Also the fall of the ground necessitates cellars under these buildings, even if the records did not mention them.

To sum up what has been said concerning the customs houses, it has been shown that the king's customs were never collected at St. Mary's Woolchurch Haw, but were established on the Woolwharf at the latest by 1341. Probably they were already there by 1318, and possibly from the first establishment of the ancient customs in 1275. The fact that the tronage was on the quay by

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[1] Cal. Pat. Rolls (1385-9), 204.

[2] Issue Roll 522 Michaelmas, 14 Richard II, m. 21; Foreign Accounts (E. 364), 35 m. A.

[3] Cal. Pat. Rolls (1399-1401), p. 152; (1401-5), p. 103; *ibid.* (1422-9), pp. 142-3; *ibid.* (1436-41), pp. 225-6.

[4] 'The Customs Houses of London' in *Port of London Authority Monthly*, 1927-8.

1341 almost certainly means that the house for the ancient customs was there also, and as the two customs ancient and petty were administered together until 1365, it follows that the petty customs was there also. In 1365 the volume of trade had so much increased that it became necessary to separate the work of the two branches: a new house was hired for the petty customs, which (in the absence of evidence to the contrary) was presumably also on the quay It was not until 1376-8, however, that there is clear evidence that the houses were on the wharf, but then it comes from three sources: (1) the petition of the Good Parliament; (2) the appointment of Richard Baret as keeper of the ancient customs house on the Woolwharf; and (3) the slight description of the houses on their sale to Chircheman. Finally, it has been possible to describe the houses to some extent, to put forward a theory as to their arrangement on the site, and to describe the furniture in the Edward I building. It is possible that a closer examination of both site and records may reveal fuller information on this interesting subject, and enable us to picture more clearly the way in which our ancestors dealt with a problem which has returned to us to-day—the problem of the imposition of a tariff.

XV.—*The Church of Asinou, Cyprus, and its Frescoes. By the Rt. Rev. the* BISHOP OF GIBRALTAR, *Major* VIVIAN SEYMER, *D.S.O.*, W. H. BUCKLER, *Esq., F.S.A., and Mrs.* W. H. BUCKLER, *C.B.E., D.Phil.*

Read 25th February 1932

PREFATORY NOTE

THIS article is in four sections. The first, by the Bishop of Gibraltar, describes his original visit to the church and the impression made upon him by its interior. The second, by Major Vivian Seymer, gives an account of the fabric and the main features of its probable history. In the third section Mr. William Buckler catalogues the frescoes, with brief notice of each, and transcribes the inscriptions on them in cases where these seem to be of special interest. Lastly, Mrs. William Buckler states reasons, based on the evidence of the three historical inscriptions, for believing that the church was probably erected in 1106 by Nicephorus, son-in-law of the emperor Alexius Comnenus and brother-in-law of Anna Comnena the historian. The plan and sections are by Major Seymer.

I. PANAGIA ASINOU, CYPRUS

In every part of Cyprus a visitor will observe by the roadside the presence of ruined or semi-ruined buildings—Byzantine or Franco-Byzantine. These buildings are in many cases cruciform and domed churches, and most of them preserve their original forms although remodelled or partially rebuilt at different periods. The Famagusta district is particularly rich in such buildings. So also is the Troodos Forest, the mountainous region which occupies the south-west quarter of the island. A number of interesting churches in this district, such as those at or near Galata, at Pedoulas, Moutoullas, Kalopanayiotes, the monastery of St. John Lampadistes, Pelendria, Trimiklini, and others, are accessible by car, but there are numerous buildings which can only be reached on foot or with a donkey. Few, if any, of these have received the attention and careful study which they deserve.

The existence of an interesting church at Asinou, on the northern side of Troodos Forest opposite Morphou, was for long known to me through the brief description of it which is given by Mr. George Jeffery, F.S.A., in his admirable work, *Historic Monuments of Cyprus*, published in 1918 by the Cyprus Government Printing Office. His reference (p. 284) to the 'nave with apse' and to a 'narthex with dome', the whole covered by a tiled pent roof, and also to 'two layers of paintings' served to arouse my curiosity, and finding that no Englishman had seen the building for many years, I made a resolution to visit it. The opportunity came on one of the early days of March 1931, when I secured the help and guidance of a Cypriot forest-guard at Evrykhou on the main Nicosia–Troodos road and walked eight or ten miles, climbing over the shoulder of Kakos Anemos (2,500 ft.) into the valley of the Asinou river. There is a much easier and shorter route from Kato Koutrapha (via Nikitari) which was not then known to me.

The church of the Panagia, Asinou, and the ruins of the 'Monastery of the Pasture' (*μονὴ τῶν Φορβίων*) stand in lovely scenery on a tiny shoulder overlooking the valley. The church is, in these days, isolated, the only human dwellings in the neighbourhood being two or three shepherd's cottages about a mile away up the stream. It is a place of prayer and 'pilgrimage' for country folk, and on rare occasions a small 'panegyris' or fair may be held at or near Asinou, but I am informed that it is many years since the Liturgy was celebrated at its altar.

Entering by the west door into the narthex, I stood and held my breath. For in spite of some broken furniture and an accumulation of dust and rubbish, my eyes were caught and held by the warmth and harmony of the colouring on the walls. Looking this way and that, looking up into the dome, I saw the whole surface from dome to floor as a gallery of very remarkable paintings. Nothing comparable to this had I ever seen elsewhere, except (if my memory serves me aright) at Boyana, in the Balkans,[1] twenty years earlier. First the colouring, then the vigour of the drawing, then the sense of mystical reflection which the interior with its unique painting inspires, seemed to rivet one to the spot.

As I began to take in the details I was more and more impressed by the unexpectedness and variety of treatment in the art disclosed. There was austerity, severity enough in the splendid Pantocrator above; there was formal beauty of a very rare kind in the Meter Theou Phorbiotissa (Μήτηρ Θεοῦ ἡ Φορβιότισσα) over the doorway and in the St. George on the south wall, but in addition there were charming human touches as, for instance, in the portrait of the Hegoumenos with his hounds, and in the vivid sketches of monks and benefactors of Asinou; and there was also a view of snow-capped hills from the landscape out of which I had stepped a moment before. Further examination of the church revealed a whole series of paintings illustrating very fully the iconography of the Comnenian period, and showing the quality of artistic production in Cyprus after the Arab invasions, and during those 200 years

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[1] See the account of this church, which dates from 1259, in *Mélanges Ch. Diehl*, 1930.

(A.D. *c.* 980–1180) when the island enjoyed an era of comparative peace under Byzantine administration and in close contact with the capital. The eikons of later date are of less striking interest, but some, notably that of the Christ Emmanuel at the prothesis (credence-table), are quite unusual, and like other features of the church of Asinou are now claiming the attention of experts.

The excellence of the photographs here reproduced is due entirely to the skill and rare patience of the brothers Messrs. Mangoian, of Nicosia, Cyprus. They have visited Asinou several times in order to secure, with flashlight, the best results.

During the summer of 1931 I sent copies of the photographs to Mr. (now Sir) Eric Maclagan and to Professor Norman H. Baynes in London. The latter passed them on to Mr. William Buckler, who visited Cyprus with Major Seymer. Meanwhile, by invitation of the Orthodox Archbishop of Cyprus, Professor G. Soteriou, Curator of the Byzantine Museum, Athens, spent about two months (August and September 1931) in the island, and is preparing a report upon its early Christian and Byzantine monuments.

The only detailed account of Asinou which has been written hitherto is that given in 1922 by the late Mr. J. K. Peristiani, of Ktima, a devoted lover of the historical monuments of Cyprus. His monograph was printed in Greek at Nicosia.

The church is the property of the Orthodox Diocese of Kyrenia, and was declared an 'Ancient Monument' of Cyprus (i.e. under Government supervision) on 9th April 1932. HAROLD GIBRALTAR:

II. THE FABRIC

The church, originally monastic, is built of stone rubble bound with mud.[1] Though so small, it has been much altered at different periods, the alterations, except for the addition of the narthex, being intended to strengthen the structure. On the evidence of that structure alone these alterations are difficult to date, but with the help of the wall-paintings with which the entire church is lined, it is at least possible to assign a chronological order to the various parts.

Until recently the church (pl. XCIII, 1) was surrounded by an arcade or portico about 6 ft. wide, the pent roof being carried down and supported on wood posts about 6 ft. from the walls on the north, west, and south sides. The removal of this arcade within living memory[2] is likely to hasten the disintegration of the paintings by the penetration of damp. On the north outside wall of the church at the present time there are many traces of plaster, and one fragmentary fresco.

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[1] If, indeed, lime mortar was used, it must have been weak mixture and is now quite perished.

[2] The 'verandahs' mentioned by Jeffery (*op. cit.*, p. 284) are shown in the frontispiece to Peristiani's *Monographia* (1922).

The church is rectangular in plan with apsidal east end[1] and a narthex at the west end. The rectangular naos is divided into three compartments by two pairs of internal buttresses. These buttresses form the abutment of transverse arches V, VII, which in turn support a stone wagon-vault, specially referred to later. The narthex is roofed by a dome on pendentives, and the arches which carry these pendentives are slightly pointed. The transverse arches in the naos are decidedly so. All door and window openings[2] are round-headed, as are also the six recesses between the buttresses of which the latter form the jambs.

The plan is Cypriote Byzantine,[3] and there is evidence that wherever the pointed arch occurs in the body of the church it indicates work undertaken in order to support a failing fabric and at a date subsequent to that of the original building. The narthex, in which an earlier form of pointed arch appears, is also an addition to the original structure.

The first of these conclusions is suggested by the fact that the inner part of the buttresses, which forms the springing for the transverse pointed arches, is an addition. The joint between the additions and the original masonry is clearly visible on each buttress. The second conclusion follows from the fact that the external masonry of the narthex differs from, and is superior to, that of the body of the church. Again the junction is obvious.

A pair of internal buttresses has also been added to the apse of the bema. The stonework of that on the north side is still unplastered. As shown in our longitudinal sections (pp. 334, 335), these buttresses conceal the eastern sides of the circular-headed recesses in the north and south walls.

Externally the building has been strengthened on both sides by attached buttresses, and on the north side by a flying buttress. The adoption of a flying buttress seems to indicate that the external wall at this point had frescoes which it was desired to avoid screening. While these buttresses are not bonded into the walls and must be later additions, they appear impossible to date.

The original vault covering the central bay of the naos may have collapsed altogether prior to the latest strengthening and repainting of that part of the building. That such a catastrophe actually took place is suggested by three facts otherwise difficult to explain. First, the form of the vault. In both adjacent bays the vault, though now spread and badly cracked, was clearly of roughly semicircular section. The central bay alone has a wagon-shaped vault. This shows no signs of failure, and is not of Byzantine form. It bears no relation to the vaults of the other two bays, which are covered with early paintings. Secondly, the internal and external buttressing points to great precautions for the stability of the centre vault, such as a previous collapse might well have inspired. Thirdly, the lettering of the donor's inscription (36 A, *c.* 1099) is much later than that on 41 (date 1106), and the colours, the haloes, etc., in that 'magistros' painting are plainly more modern than those in 41 (see fuller description below). So complete a repainting of 36 A would be natural if it was severely damaged by the collapse in question.

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[1] It is triapsidal, the recesses on each side being tiny apses. G. Millet notes how rare is 'une seule abside, parce que la liturgie grecque en veut trois'. *B.C.H.*, xix, 1895, p 455.

[2] The only windows, besides the semi-circles above the doors, are the three in the E. apse and the one high up in the W. wall of the naos.

[3] For example, with the plan of the small church of Poganovo in Bulgaria (*Byz. Z.* xvii, 1908, p. 122) contrast Jeffery's plans of Asinou (fig. 15) and of other Cypriote churches, especially those in figs. 2, 4 (upper half) and 10; *Proc. Soc. Ant.* xxviii, 1915–16, pp. 114 f.

Nothing in the dating of the paintings tends to contradict the foregoing remarks on the structure; several of the dates, however, can only be conjectured. In many parts of the church there are two layers of plastering and painting, parts of the later layer having peeled off and exposed the painting beneath. In one or two places the walls have been painted three times.

Considering their various dates, most of the paintings have been astonishingly well preserved. At three points (8 B, 36 A, 41) there are dated inscriptions, and as to two of these there is no reason to suspect any restoration of the paintings to which they refer. At the west end of the naos and on the flanking walls as far as the first pair of buttresses are a series (17–19, 40–42 C) which from their style and colour appear to belong to the same period. Those at the south side bear an inscription (41) dating them 1106, in the reign of Alexius Comnenus. In the same style are those on the vault covering this space and the vault over the bema—the two parts of the vault which are cracked. Finally, to this early period may be assigned the figures (29–30 A) decorating the apse, but not the vault thereof (48). This vault has apparently been reconstructed and repainted to extend over the buttresses provided to strengthen the apse. The style is contemporaneous with that of the seated Virgin (12 B) on the south semi-dome of the narthex, which can be placed about the first half of the thirteenth century, and therefore the buttressing of the apse and the rebuilding of its semi-dome may be dated about this time.

The second dated inscription (1333) is in the narthex over the door to the nave (8 B). Much of the narthex seems to have been subsequently repainted, and there are great differences in style and colour. But certain figures, notably those of the Virgin above referred to and of St. Anastasia (13), seem to be of thirteenth-century style and much older than this inscription, which earliness of date also necessarily applies to the building of the narthex.

The third and most interesting dated inscription is that on the representation of the donor in the act of dedicating the church. This (36 A) occupies the tympanum of the recess facing the north door. It must here be explained that the central portion of the naos, that is to say the two pairs of buttresses, the pointed arches V, VII connecting them, the vault enclosed between these arches, and the walls between the buttresses, has been magnificently redecorated probably about the middle of the fourteenth century. In style and colour these frescoes are distinct from all other paintings in the naos. They have certain characteristics, such as a deep-blue background and haloes modelled in relief. The donor's picture with its inscription mentioning the date 1099 now forms part of this decoration, but while the colour and the lettering accord with the rest of this late work, the drawing and details of costume do not. It seems reasonable to think, therefore, that at the time of the above-mentioned redecoration of the naos the donor's picture was sufficiently respected by the monks to be carefully restored and re-coloured to accord with the new work, without, however, any material alteration. The drawing of this picture should be carefully compared with that of the early painting of Constantine and Helena (41) at the western end of the same wall.

Three doorways of the original church have been built up, one under the donor's picture and facing the north door, and one in each of the two apses of the narthex. Of these latter, that on the south side is no longer visible from within, because it has been covered with one of the finest paintings in the church. This represents St. George mounted and with lance poised: a favourite subject in other painted churches in the island. The dragon is not represented. The pigments used differ from those in the surrounding paintings. Artistically speaking, the painting is in the full flower of the Byzantine style. It combines superb confidence in composition and execution with a certain *naïveté* which can hardly be assigned to a later date than the thirteenth century. The main decoration of the narthex, which is dated by 8 B in 1332–3, and the paintings in the dome seem to be by one and the same hand.

The church displays examples, in good condition, of Byzantine painting from the twelfth to the fourteenth century.[1] In artistic quality they are unequal, but a collection of such variety and in such preservation must be extremely rare if not unique. VIVIAN SEYMER.

III. THE FRESCOES AND INSCRIPTIONS

By comparing the three frescoes which bear dates and the inscriptions on each of the other frescoes we can approximately fix the age of the undated examples and hence that of certain parts of the fabric. The oldest frescoes closely resemble 41–41 A in style and colouring; two of them (18, 42 A) have inscriptions in lettering precisely like that of 41–41 A.[1] The whole series[2] dates therefore from about 1106. To this series evidently belonged the original of 36 A depicting the magistros founder with his wife (?) who died in 1099. Presumably copied from that twelfth-century original, 36 A shows a far more modern script; the colouring, the silvery haloes in relief, and the lettering of 36 A are identical with those of the central frescoes on the naos vault. This script is very like that below 8 B (dated 1332/3), but owing to differences in style those vault frescoes cannot have been painted at the same time as 8 B; we may thus consider them somewhat later than 8 B and may date them and 36 A about 1350. The fine fresco on the conch of the E. apse (48) bears lettering of about 1250 such as we find only on 12 A and 13; hence we infer that 48, 12 A, 12 B, 13, were all painted about 1250. The date of 28, with script partly uncial partly cursive, seems to be early seventeenth century.

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[1] Omitting 28, which is post-Byzantine.

The history of the building and of its decoration may tentatively be summarized thus:

1105/6: Erection and frescoing of the naos and bema. Of the original frescoes nineteen survive; most of those in the central bay of the naos were repainted about 1350.

c. 1200: Erection and frescoing of the narthex. Its original decoration probably survives only in the fragments seen where the surface of existing frescoes is broken.

c. 1225/50: The conch of the bema was restored and on it was painted 48. The S. door of the narthex was walled up and 12 A, 12 B, 13 were painted.

c. 1300: The central vault of the naos was rebuilt and the central bay strengthened with internal buttresses; these were adorned with the frescoes of which fragments are seen below 20 and 39.

1332/3: Painting of 8 B and of the dome and all other frescoes in the narthex, except 12 A, 12 B, 13 (earlier)[3] and 5–7, 9–12 (later). In the naos, 20, 22, 23, 24, and 39 (upper saint) were painted with gilt haloes like those in narthex.

c. 1350: In the central bay of the naos all the frescoes except 20, 22, 23, 24, 39 (upper), and in the narthex 5–7, 9-12 were painted with silvery haloes in relief.

c. 1620: On the N. buttress of the E. apse 28 was painted.

In the following list of frescoes the numbers correspond to those marked on the sectional drawings, while the Roman numerals designating the arches are shown on those drawings as well as on the plan.

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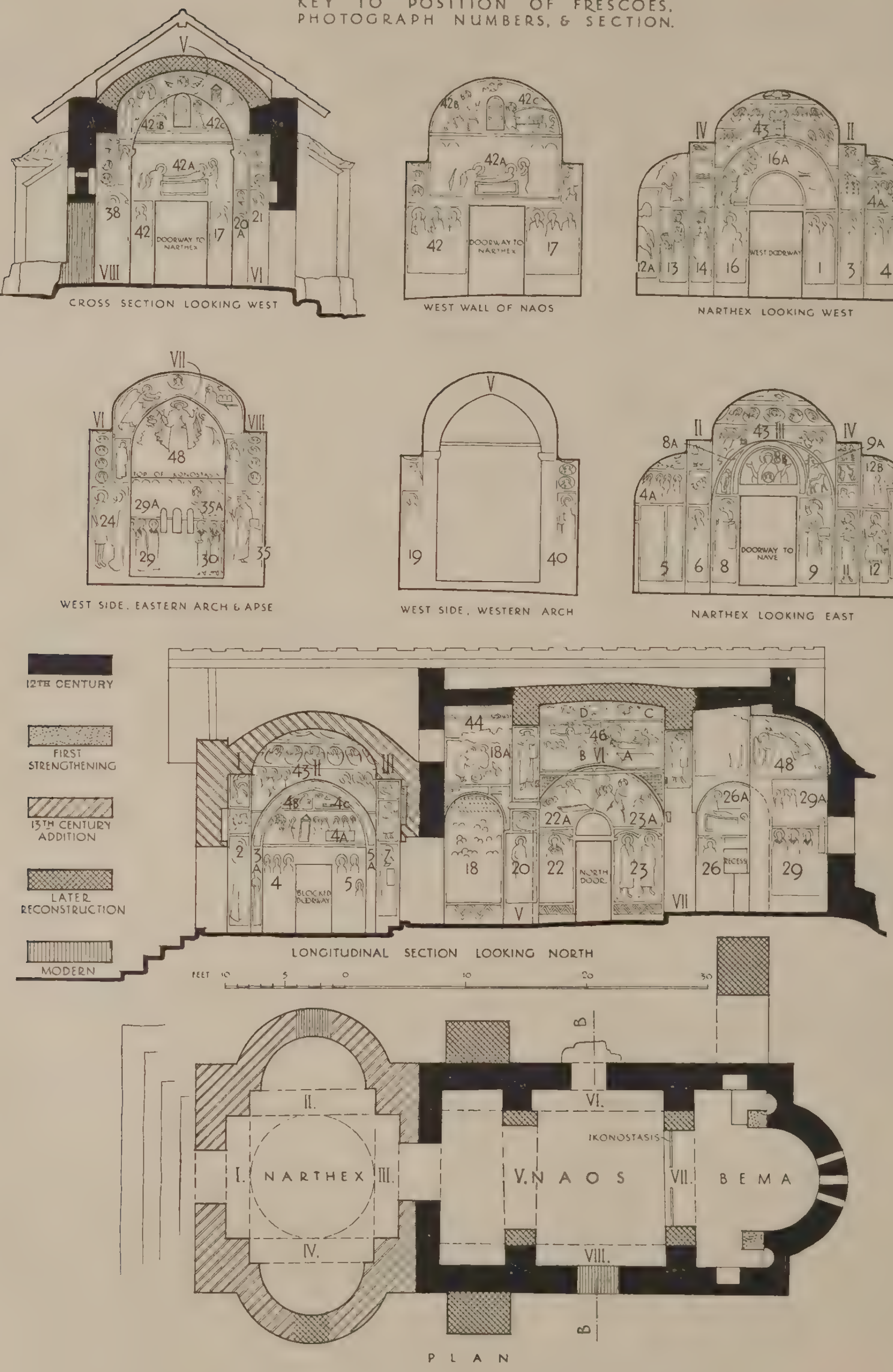
[1] It is the uncial script in vogue about 1100; cf. *C.I.G.* 8715 (pl.); *Mon. As. Min. ant.* iv, nos. 95, 96; *Byzantion* iii, 1926, p. 305, pl. 5.

[2] It consists of 17, 18, 18 A, 26, 26 A, 29, 29 A, 30, 30 A, 33, 40, 41, 41 A, 42, 42 A, 42 B, 42 C, 44, 47. These frescoes are over fifty years older than those of Nerez in Macedonia; Diehl, *Manuel d'art byz.* ii, p. 825. Of the other frescoes few appear datable from their style only.

[3] The fact that 12 A, 12 B are earlier than 4 A–4 C, 8 A, 8 B, 9 A, explains why there is no large inscription over the N. apse (pl. XCVII, 1) like those over the S. apse and above 8 B (pl. XCV, 1, 2).

KEY TO POSITION OF FRESCOES, PHOTOGRAPH NUMBERS, & SECTION.



CROSS SECTION LOOKING WEST

WEST WALL OF NAOS

NARTHEX LOOKING WEST

WEST SIDE, EASTERN ARCH & APSE

WEST SIDE, WESTERN ARCH

NARTHEX LOOKING EAST

LONGITUDINAL SECTION LOOKING NORTH

PLAN

CHURCH OF ASINOU, CYPRUS

The numbers of the narthex frescoes are 1–16 A, 43 (dome), and of the narthex arches I–IV; those of the naos frescoes are 17–24 A, 35–42 C, 44–46 (vault), and of the naos arches V–VIII; those of the bema frescoes 25–34, 47–48 (vault). Reference is made in brackets to the days on which certain saints appear in the *Acta Sanctorum* and to mention of them by Delehaye, 'Saints de Chypre', *Analecta Bollandiana* xxvi (1907); thus 'D. 272' means p. 272 of that dissertation.

NARTHEX:

1 St. Timotheos; St. Maura (May 3; D. 272). Each holds a small cross. Every effigy is accompanied by its name.

2 St. Paraskeue (D. 268, 270). She holds a round medallion showing the head of Christ.

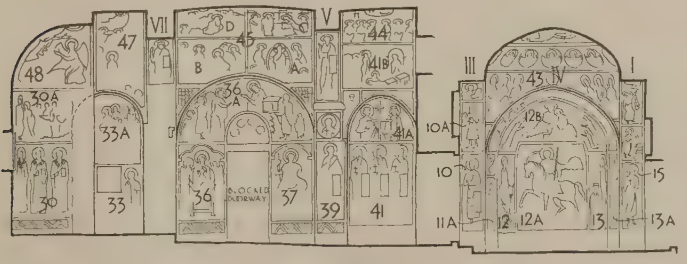
3 St. Eudokia (D. 270).

3 A The servant of God, Babylas, a monk.

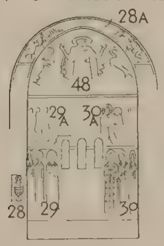
4 St. Marina (D. 267); St. Kosmas; St. Damianos (D. 290). (Earlier fresco below.)

4 A (Pl. xcv, 1.) St. Peter, leading a procession of the Just, advances with a key in his r. hand to unlock the door of Paradise. On this door is one of the cherubim, and behind it are (from l. to r.) the Penitent Thief, standing; Abraham, the Virgin, Isaac, Jacob, all seated. In the lap of each patriarch, a group of the Blessed. In background are seen several trees. Inscriptions: ὁ ἅγιος Πέτρος. ὁ παράδισος. ὁ ληστίς. ὁ δίκεος Ἀβραάμ. Μ(ήτη)ρ Θ(εο)ῦ. ὁ δήκεος Ἠσαάκ. ὁ δίκεος Ἰακόβ.

CHURCH OF ASINOU, CYPRUS
PHOTOGRAPH NUMBERS & POSITION OF FRESCOES



ELEVATION OF INTERIOR LOOKING SOUTH



BEMA - APSE

4 B (Pl. xcv, 1.) Earth, a man with crown and halo, clad in a tunic, sits on a lion's back; his l. hand grasps by the tail a snake, whose body curves above his head and who drinks out of a cup held in his r. hand. Below, snakes and birds. Inscribed *ἡ γῆ*.

4 C (Pl. xcv, 1.) Sea, a man crowned and with halo, half draped, sits on a whale's back; he holds in his l. hand a ship with mast and sail, in his r. an oar (or rudder ?). Below, fishes and a squid. Inscribed *ἡ θάλασσα*.

Above the apse arch, in large letters: + *Δεῦται, ἡ εὐλογειμένη τοῦ πατρός μου, κλειρονομείσατε τὴν ἡτιμασμένην είμῆν βασιλείαν ἀπῶ καταβολεῖς κώσμου· ἐπήνασα καὶ ἐδώκατέ μει φαγῆν, ἐδίψεισα καὶ ἐποτείσατέ με* (*Matth.* xxv. 34).

5 Michael the archangel; on his l., the servant of God Leontios, a monk. (Earlier fresco below.)

5 A The servant of God Laurentios, a monk (facing to l.).

6 St. Sozomenos (D. 252), holding a small cross.

7 St. John Damascene, holding a scroll with text. He has a large turban and a halo. (Earlier fresco below.)

8 (Pl. xcv, 2; head only.) The Virgin in prayer, facing to l. Her r. hand holds a scroll with text: *λητὰς προσάγει μητρικὰς ἡ Παρθαίνος, | τὸ αὐτὸ κομπῖ πρὸς βροτῶν σωτηρίαν*. Inscribed ΜΗ͂Ρ ΘΥ͂ *ἡ ἐλεοῦσα*. (Face repainted, and earlier fresco below.)

8 A (Pl. xcv, 2.) The servant of God Barnabas worshipping, vested in alb (*στιχάριον*), dark stole (*ἐπιτραχήλιον*), chasuble (*φαινόλιον*), and wearing dark cuffs (*ἐπιμανίκια*). Inscribed: *δέ(ησις) τοῦ δούλου τοῦ Θ(εο)ῦ Βαρνάβα ἱερο(μον)αχ(οῦ). ἀμήν*.

8 B (Pl. xcv, 2.) In half circle above door: The Virgin praying, with palms of both hands uplifted; in medallion between her arms, head of the infant Christ, with cruciform nimbus. Inscribed: ΜΗ͂Ρ ΘΥ͂ *ἡ Φορβιότισσα*.

Below this and above door moulding, this inscription:
ἀνιστο[ρήθη - - c. 60 l. - -]*π̣α τῆς αὐτῖς μονῖς κὲ Θεοφίλου τοῦ ἡ[γουμένου ἐ]κίνου λαοῦ* [- c. 8 l.]*τε*[- c. 45 l.]*τ̣αχα ἡστοριογράφου ἰπὸ πέν[θους πολλ]οῦ. ἀμήν*.

ἔτο(υς) ,ϛω̅
μ̅α̅
ἰνδ(ικτίωνος) α´
(=1332/33)

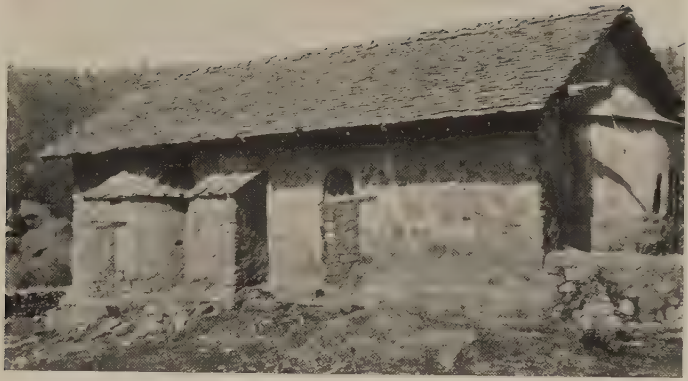
In semicircle above the Virgin, in large letters:

+ *ὦ πôς ὡ πάντων σηνεχεὶς τῶν κριμάτων | βρεφοκρατῖτε παρθενεικε̂ς ὀλένες.*
φ(ύλαξον) π(ιστεύοντας) τ(ούτου) τ(οῦ) τ(όπου) | Θ(εο)τ(όκω) ἡκ(έτα)ς τ(ῆ) πα(ν)τ(ο)τ(ρόφῳ).

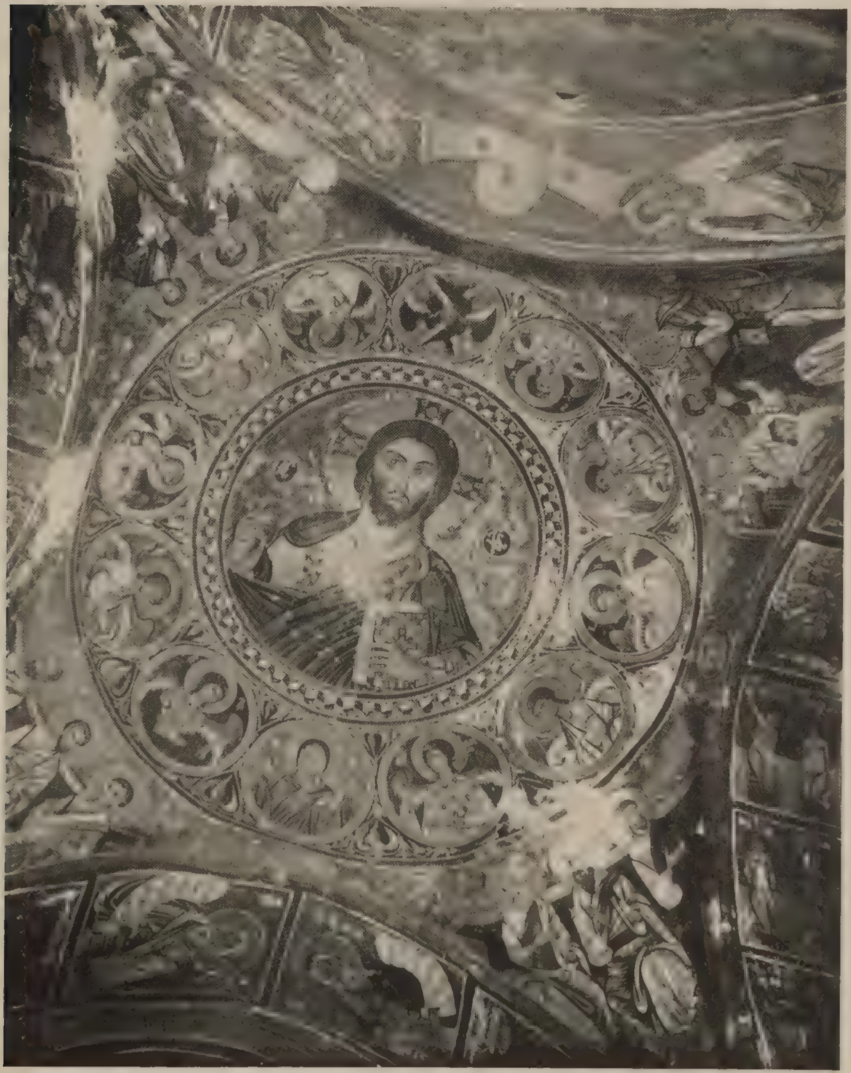
Read: *ὦ πῶς ὁ πάντων συνεχὴς τῶν χρημάτων βρεφοκρατεῖται παρθενικαῖς ὠλέναις*. 'O, how is He who holds together all things held as an infant in the Virgin's arms!' The two abbreviated *στίχοι* are given *exempli gratia*.

9 (Pl. xcv, 2; head only.) Christ, on a footstool, blessing with r. hand and holding above the l. an open book inscribed: *ἐντολὴν καινὴν δίδωμι ἱμῖν ἵνα ἀγαπῆτε ἀλλήλους* (*John* xiii. 34). On both sides of his head the inscription Ι͂C Χ͂C *ὁ ἐλεήμων*.

9 A (Pl. xcv, 2.) A white and a black hound standing; from the ring on the collar of each runs a leash, which is tied to a spear or stake set upright behind



1. Church of Asinou, from S.E.



2. Dome and pendentives (43); Arches I–IV

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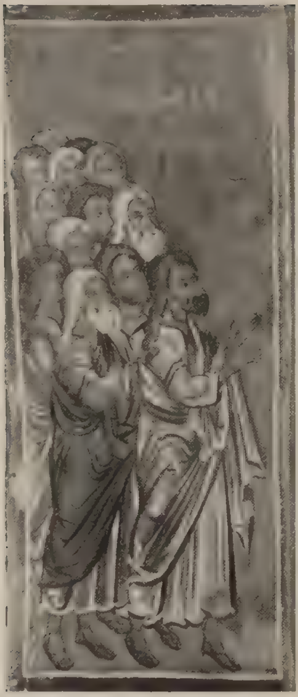
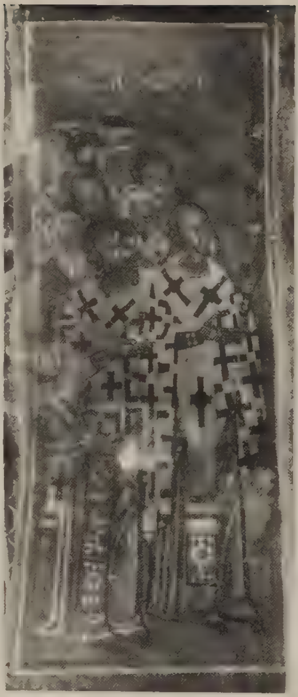
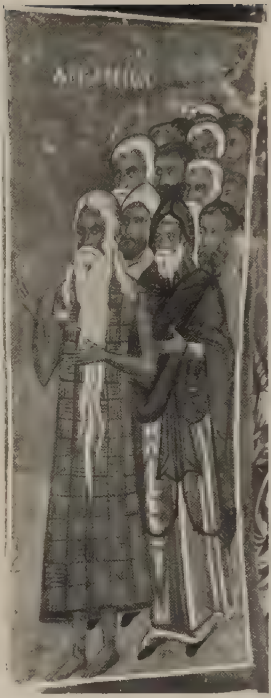
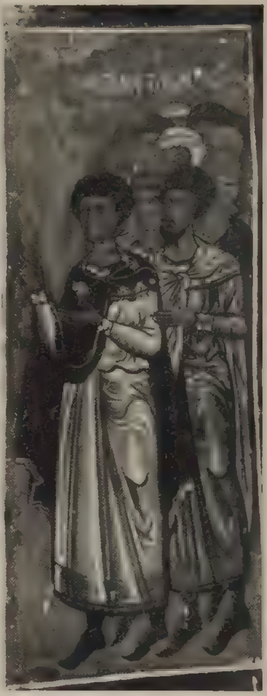
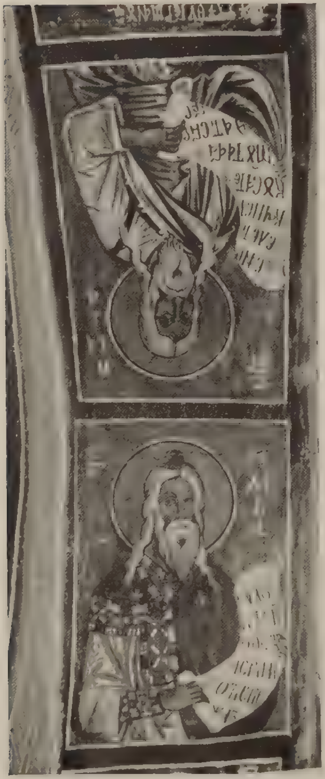
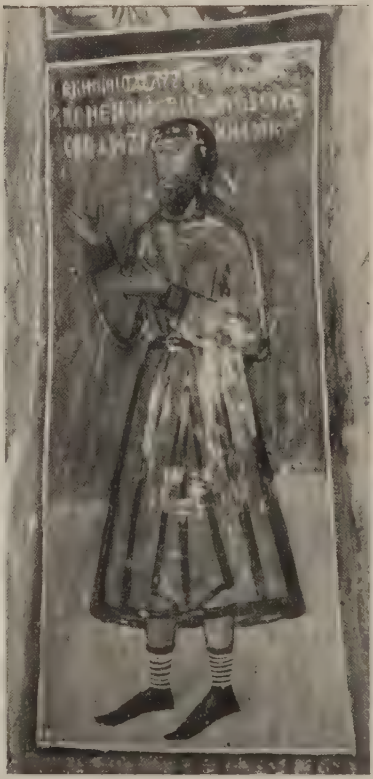

1. Prophets, II (E.) A

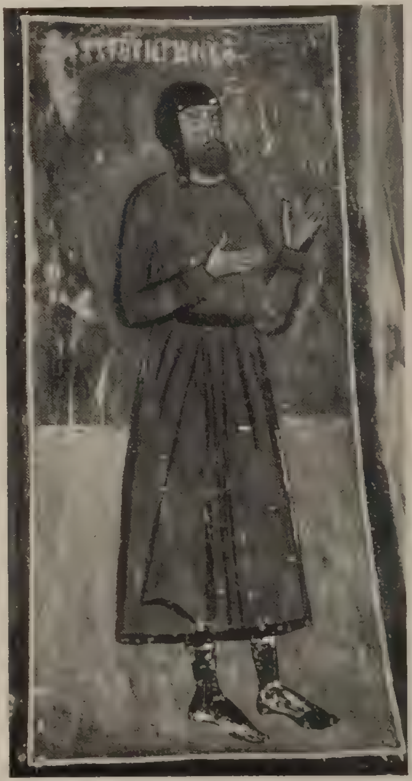

2. Hierarchs, II (E.) B


3. The Holy, II (W.) A


4. Martyrs, II (W.) B


5. III (S.) A; III (N.) A


6. Theophilos, III (S.) B


7. Germanos, III (N.) B

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them.[1] In the background, snow-capped mountains and two moufflons with horns.

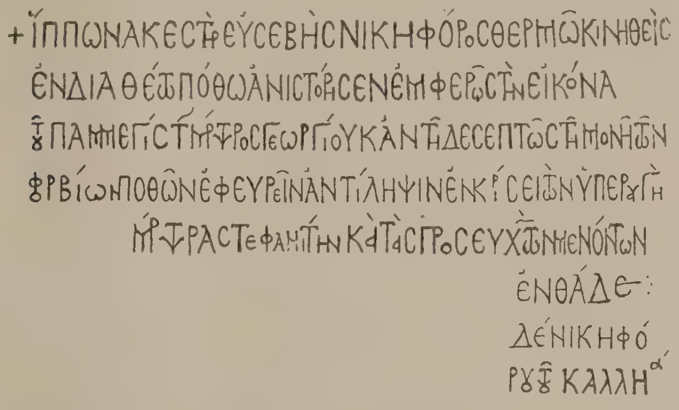
10 St. John Baptist standing, clad in a hairy tunic with girdle, blessing with his r. hand and holding in his l. an inscribed scroll. (Earlier fresco below.)

11 (Pl. xcvi, 1.) St. George 'slain by the sword', a beardless youth standing with long tunic and dark cloak, holding in his r. hand a small cross. Beside his head the name *ὁ ἅγιος Γεώργιος ὁ μαχερεμένος*.[2] (Earlier fresco below.)

11 A The servant of God, Georgios, standing and looking to his r. Inscribed: *δέ(ησις) τοῦ δούλου τοῦ Θ(εο)ῦ Γεωργίου.* (Earlier fresco below.)

12 (Pl. xcvi, 2.) St. Mamas (D. 272, 280) seated on a lion's back, holding in his r. hand a shepherd's crook and carrying a lamb on his l. arm. On his r., a palm branch. (Earlier fresco below.)

12 A (Pl. xcvii, 2.) St. George mounted on a white charger rides to the l. His face is turned toward the spectator. His r. arm bears a round shield decorated with a cross within a crescent; his l. hand holds an upright spear. His cloak, with white pendants along its lower edge, streams out behind his shoulders. Above the horse's hind-quarters, 8-line inscription, the seventh and eighth lines faint but clear:



+ ἵππων ἀκεστὴρ εὐσεβὴς Νικηφόρος | θερμῶ κινηθεὶς
ἐνδιαθέτω πόθω | ἀνιστόρησεν ἐμφερῶς τὴν εἰκόνα |
τοῦ παμμεγίστ(ου) μ(ά)ρτυρος Γεωργίου, | κἂν τῆδε σεπτῶς τῆ μονῆ τῶν
Φορβίων | ποθῶν ἐφευρεῖν ἀντίληψιν ἐν κρίσει | τὸν ὑπεραυγὴ
μ(ά)ρτυρα στεφανίτην | καὶ τὰς προσευχ(ὰς) τῶν μενόντων
ἐνθάδε.
δέ(ησις) Νικηφό-
ρου τοῦ Καλληά.[3]

---

[1] Such, perhaps, were the hounds of Andronicus, son of the emperor John Comnenus; his widow could not bear to look at his favourite horse, or his falcons, *μηδὲ δρομικὰς μηδὲ ἰχνευτόρας κύνας*. Th. Prodromus in Boissonade, *Anecdota nova*, 1844, p 378.

[2] As to this St. George *ὁ μαχαιρωμένος*, cf. Makhairas, *Chronicle*, ed. Dawkins, i, p. 34; D. 256.

[3] The accent on the ultima is characteristic of the period; cf. *γενιά* for *-νία*, *λειτουργιά* for *-γία*;

'A tamer of horses, Nicephorus the pious, moved by warm heartfelt devotion, with like feeling painted the effigy of George, very greatest of all martyrs; and reverently he did it in this monastery of the Phorbia, longing to find as helpers at the judgement that most brilliant victor-crowned martyr and the supplications of those dwelling here. Prayer of Nicephorus, son of (?) Kallias.'

On both sides of the head, cruciform texts:

L. ὁ ἅγιος as cross; R. Γεώργιος as cross.

12 B (Pl. XCVII, 1.) The Virgin seated on a throne with footstool holds the Child on her l. knee; her long mantle is flung out in folds to the r. and held above by her r. hand. On her r. stands a worshipping woman, on her l. a woman worshipper standing and a man kneeling.

13 (Pl. XCVI, 3.) On l., a woman standing, with long cloak and white headdress, faces with hands uplifted toward St. Anastasia 'the poison-curer',[1] who stands on r. The saint holds in her r. hand a cross, in her l. a long-necked phial half full. Above the woman's head: δέ(ησις) τῆς δού(λης) τοῦ Θ(εο)ῦ Ἀναστασίας τῆς Σαραμαλυνᾶς. On the l. of the saint's halo (as cross): ἡ ἁγία Ἀναστασία; on the r.: ἡ φαρμακολύτρια.

13 A Two monks standing, one above the other; the upper one turns to his r., the lower to his l. Inscription of the upper: δέ(ησις) τοῦ δούλου τοῦ Θ(εο)ῦ Καλληνήκου (μον)αχ(οῦ). That of the lower is illegible.

14 (Pl. XCVI, 3.) St. Eirene, daughter of St. Spyridon (D. 262), standing, holds in her r. hand a small cross. Inscribed, beside the head: ἡ ἁγία Ἡρίνη ἡ θιγάτηρ τοῦ ἁγίου Σπυρίδωνος. On this Eirene, see Migne, *P.G.* 116, 436.

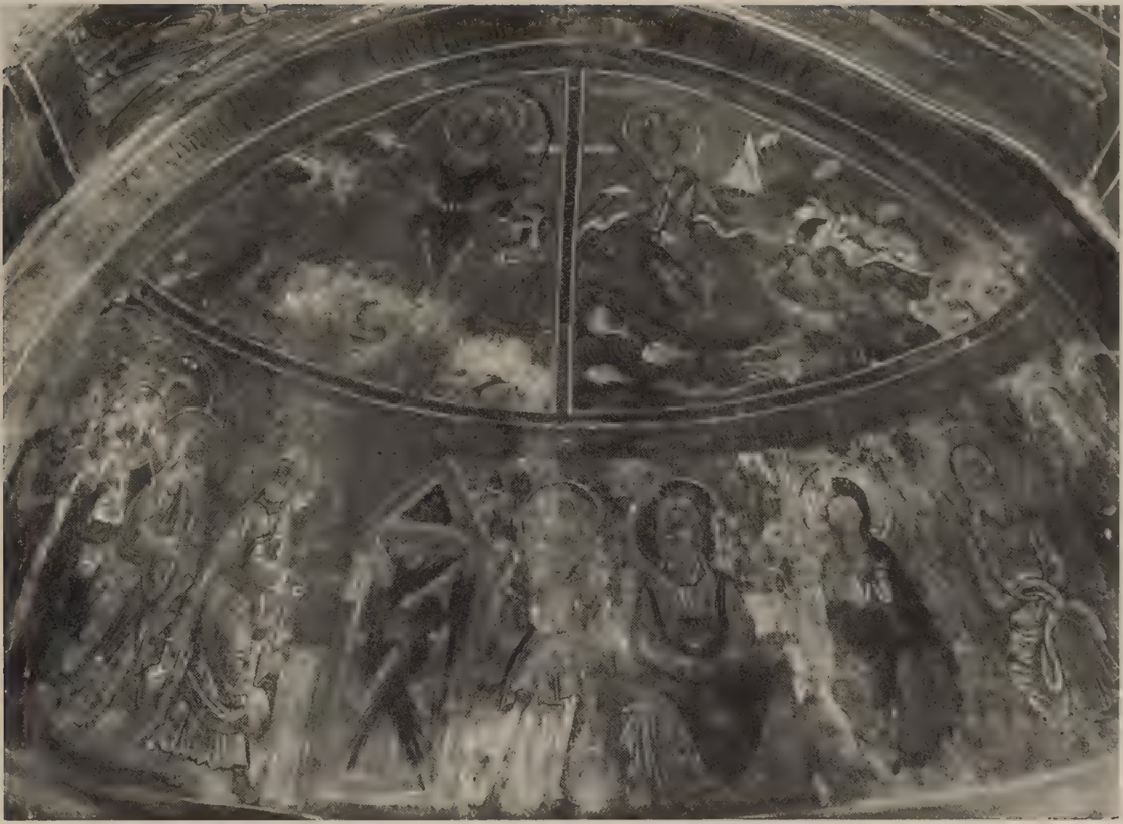
15 St. Demetrios (D. 267, 270).

16 St. Anna stands holding a small cross, and on her l. (next to the door) a woman, with partly effaced inscription above her head: δέ(ησις) τῆς δούλης τοῦ Θ(εο)ῦ Ἄννας δηα[κονίσσης].

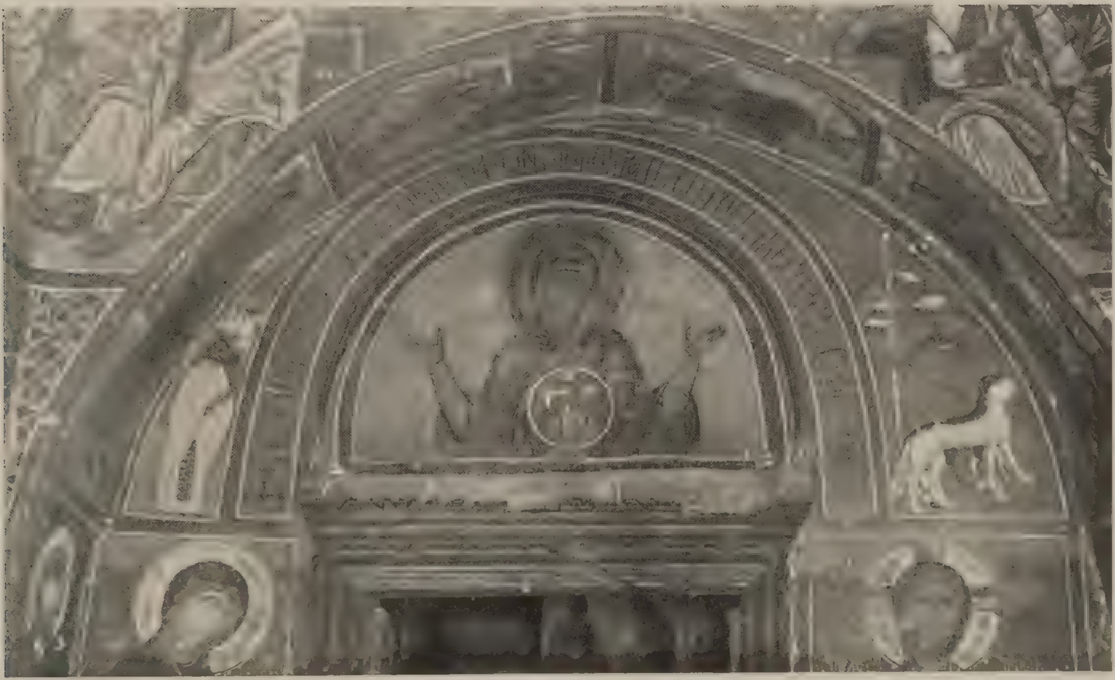
16 A Below the arch at the top, the Throne of Judgement; on it the Book and the Dove. On l., Adam and Eve, kneeling; below them groups of the Just on clouds, and an angel blowing a trumpet; at bottom, an open grave. On r. an angel swoops down toward a group of the Unjust, and a red stripe, the River of Fire, runs downward to Hell below, where a woman sits on a dragon. Inscriptions: on the Throne, ἡ ἑτιμασία τοῦ θρόνου; before the trumpeting angel, ἅμα σὺν αὐτεῖς ἁρπαγισόμεθα ἐν νεφέλαις (*I Thess*. iv. 17); below the Archangel, ἐμβάλουν τοὺς ἁμαρτωλοὺς ἠς τὸ πῦρ; on parts of Hell, ὁ πόταμος τοῦ πυρός, ὁ ἄσβεστος ἅδις.

Makhairas, *op. cit.*, ii, p. 23, n. 1, p. 32. If not the patronymic (as here translated), *Kallias* was one of N.'s names.

[1] This is the martyr Anastasia (Oct. 12); she bears this epithet in Denys de Fourna's *Manuel* (ed. Papadopoulos-Kerameus, 1909), pp. 169, 300, is depicted at Poganovo (*Byz. Z.* xvii, 1908, p. 126), and had a monastery dedicated to her near Thessalonica; *Byz. Z.* vii, 1898, p. 57; x, 1901, p. 193.



1. The Earth ; the Sea ; St. Peter admitting the Just into Paradise ; 4 B, 4 C, 4 A, II



2. The monk Barnabas worshipping ; the Virgin praying ; landscape with hounds ; 8 A, 8 B, 9 A, III

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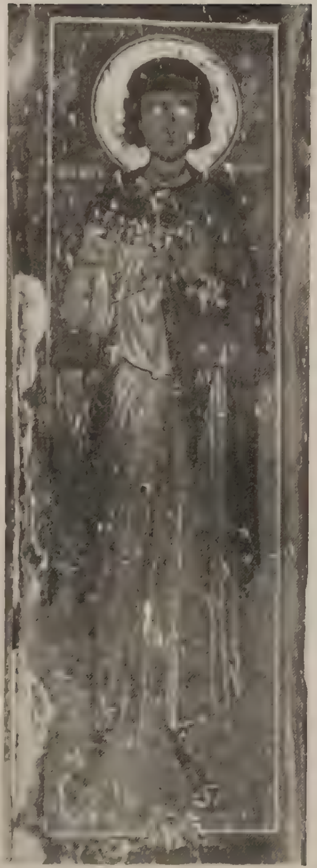
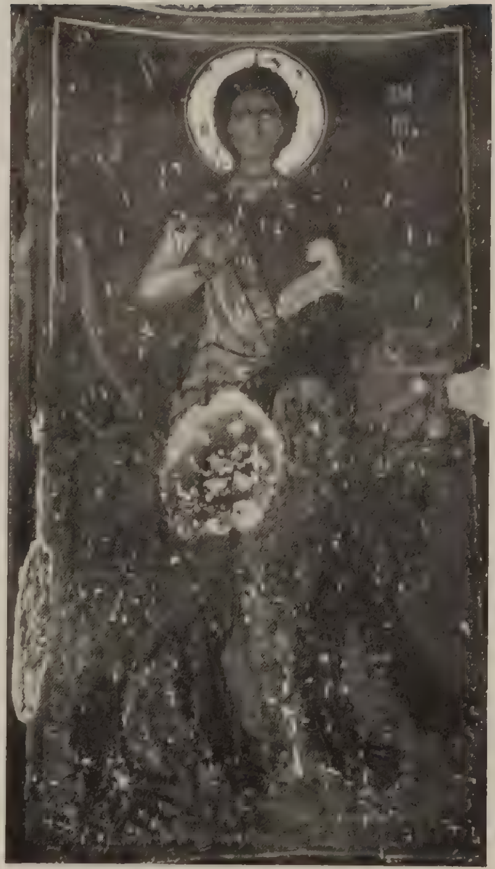
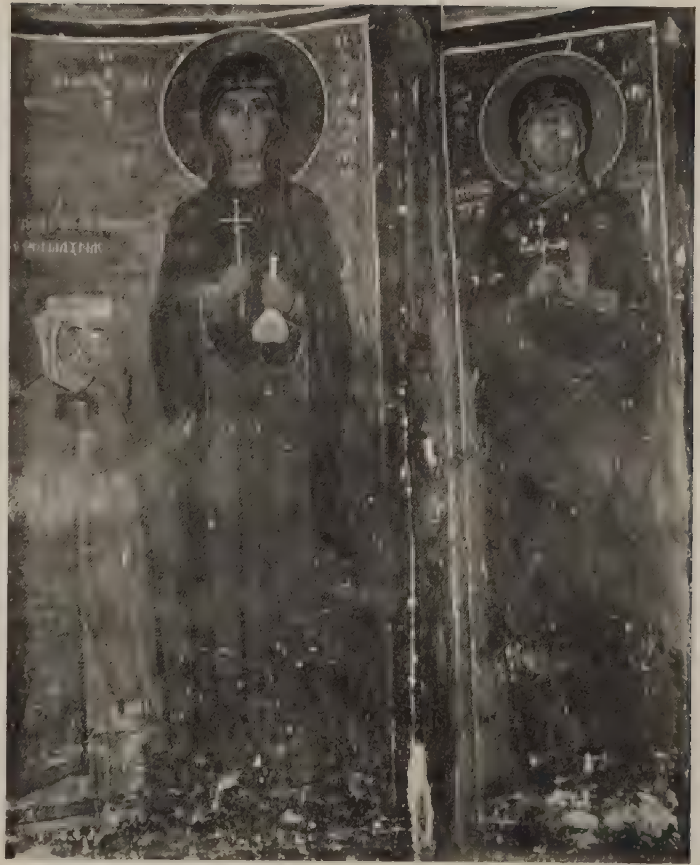


1. St. George 'slain by the sword'; 11



2. St. Mamas on lion; 12



3. St. Anastasia with votary; St. Eirene; 13, 14

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ARCHES:

I (S.) (Pl. xciii, 1.) Angel blowing a trumpet. Text: *ὁ ἄγγελος σαλπίζων.* (Centre) Two angels with the scroll of heaven which they are rolling up; on it, the sun and the moon. Text: *ἡ ἄγγελι τηλίγουν τὼν οὐρανόν.* (= *τυλίγουσιν.*)

(N.) Angel weighing the souls in a pair of scales. Text: *ἡ δηκεοσήνη.*

II (E.) A. (Pl. xciv, 1.) Choir of Prophets. Text: *χόρως προφιτῶν.*

B. (Pl. xciv, 2.) Choir of Hierarchs. Text: *χόρως ἡεράρχων.*

(W.) A. (Pl. xciv, 3.) Choir of the Holy. Text: *χόρως ὁσίον.*

B. (Pl. xciv, 4.) Choir of Martyrs. Text: *χόρως μαρτίρων.*

III (S.) A. (Pl. xciii, 2; xciv, 5.) Zacharias, with scroll. Text: *εὐλογητὸς Κ(ύριο)ς ὁ Θεὸς τοῦ Ἰσραὴλ ὅτη ἐπε[σκέ]ψατο* (*Luke* i. 68).

B. (Pl. xciv, 6.) The monk Theophilos. Text: *ἐκημίθι ὁ δοῦλος τοῦ Θ(εο)ῦ Θεόφυλος (μον)αχ(ός). κὲ ἡ ἐνθάδε βλέπωντες εὔχεσθε διὰ τὼν Κ(ύριο)ν· ἀμήν.* This man is doubtless the Theophilos named in the inscription 8 B.

(N.) A. (Pl. xciii, 2; xciv, 5.) Isaiah, with scroll. Text: *ἐὰν θέλετε καὶ ἡσακούσατέ μου, τὰ ἀγαθὰ τῆς γῆς.*

B. (Pl. xciv, 7.) The monk Germanos. Text: *δέ(ησις) τοῦ δούλου τοῦ Θεοῦ Γερμανοῦ (μον)αχ(οῦ).*

IV (E.) Nude figures of sinners, each tied to a stake above a fire and attacked by a serpent:

A. (Pl. xciii, 2; xcvii, 1.) The changer of landmarks. The dishonest miller. Texts: *ὁ παραβλαχιστής* (= *παραυλακιστής*). *ὁ παραμυλωνᾶς.*

B. (Pl. xciii, 2; xcvii, 1.) The thief. The slanderer. Texts: *ὁ κλεπτίς. ὁ κατάλαλος.*

C. (Pl. xcvii, 1.) The usurer and falsifier of the balances. The faithless nun. Texts: *ὁ τοκιστὶς κὲ παραζηγιαστίς. ἡ ἀποκαλόγρεα.*

D. The faithless monk. The corruptress of children. Texts: *ὁ ἀποκαλόγερος. ἡ ἀποστρέφουσα τὰ νήπια.*

(W.) A. (Pl. xcvii, 1.) The worm that dieth not (*Mark* ix. 48). Many human faces and streaks representing worms. Text: *ὁ σκώληξ ὁ ἀκοίμητος.*[1]

B. (Pl. xcvii, 1.) The gnashing of teeth; a group of heads, with white tongues of flame. Text: *ὁ βρυγμὸς τῶν ὀδόντων.*

C. (Pl. xcvii, 1.) Tartarus; faces dimly showing amid blackness. Text: *ὁ τάρταρος.*

D. The outer darkness; a panel of plain black. Text: *τὸ σκότος τὸ ἐξώτερον.*

DOME:

43 (Pl. xciii, 2.) Christ Pantokrator, facing eastward, blessing with r. hand and holding in l. the Book of Judgement. In the circular strip surrounding the

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[1] Such pictures must have been familiar to the public. Theodore Prodromus suggests that he is condemned *εἰς σκώληκαν ἀκοίμητον, εἰς τάρταρον, εἰς σκότος,* since he suffers from their equivalents, poverty, cold, and hunger. A. Koraes, *Atakta*, 1828, pp. 9, ll. 254–65.

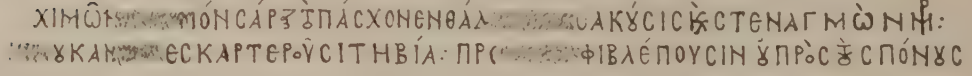
centre, twelve small circles; in that on E. side, the Virgin praying as in 8 B (without the medallion); in those beside her, the archangels Michael and Gabriel; in that on W. side, a cherub; in each of the eight others, an angel.

On each of the four triangular pendentives, three Apostles, each with the initial of his name.

NAOS AND BEMA:

17 St. Antonios (D. 266). St. Euthymios (D. 281). St. Sabas (D. 268).

18 (Pl. XCVIII, 1.) The Forty Martyrs of Sebaste[1]; a group of men with bodies naked each showing one or more red wounds, the faces expressing pain, the eyes mostly looking upwards (to Christ above). At the top, in three rows, thirty-nine crowns (three effaced); above them, traces of lettering now illegible, and below them two lines of inscription:[2]


ΧΙΜΩΝ ... ΜΟΝ CΑΡΞ ΤΟ ΠΑCΧΟΝ ΕΝΘΑΔ ... ΑΚΟΥCΙC ΚΕ CΤΕΝΑΓΜΩΝ ΜΡ:
... ΟΥ ΚΑΜ ... ΕC ΚΑΡΤΕΡΟΥCΙ ΤΗ ΒΙΑ· ΠΡ ... ΦΙ ΒΛΕΠΟΥCΙΝ ΟΥ ΠΡΟC ΤΟΥC ΠΟΝΟΥC

χιμῶν[ι]ος κρυ[μὸν σάρξ τὸ πάσχον ἐνθάδ[ε, | γόου]ς ἀκούσις κὲ στεναγμῶν μ(α)ρ(τύρων)· |
[πάγ]ου κα[μόντ]ες καρτεροῦσι τῇ βίᾳ, | πρὸ[ς τὰ νέ]φι βλέπουσιν, οὐ πρὸς τοὺς πόνους.

'It is flesh that here bears the winter's *cold*; thou shalt hear the martyrs' *sobs* and groaning. They are steadfast as they suffer under the sharpness of the *frost*; at the clouds they look, and not upon their pangs.'

On the soffit of the arch above, Christ's head in a circle, between two archangels.

18 A The Washing of the Feet.

19 St. Niketas (D. 267). On the r. the surface of the added buttress has never been decorated.

20 (On front of buttress:) St. Paul. (Above:) St. Tryphon (D. 268). (Earlier fresco below.)

20 A St. Simeon (Stylites). (Below:) St. Onouphrios (D. 268). (Above:) St. Ioulitta.

21 St. Nikephoros.

22 (Pl. XCVIII, 2.) St. Nikolaos[3] standing in vestments, blessing with his r. hand and holding a book in his l. Near his r. shoulder the half figure of Christ turned towards him; near his l. shoulder the half figure of the Virgin turned towards him and holding out a stole (ἐπιτραχήλιον).

22 A (Pl. XCVIII, 2.) The empty Tomb, containing the grave-clothes; the archangel

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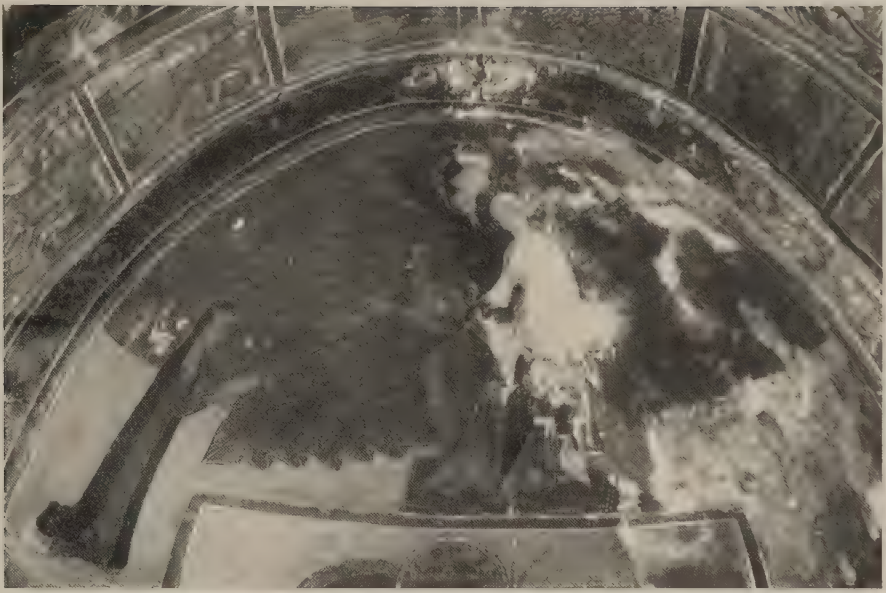
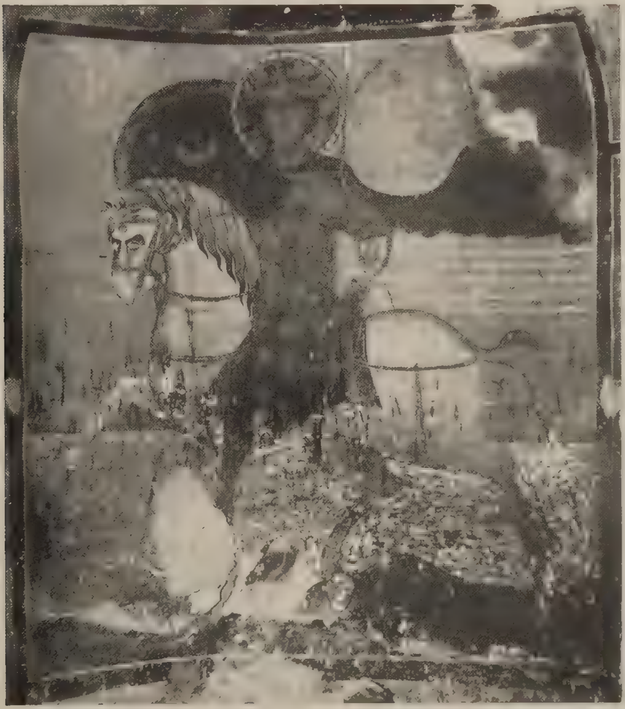
[1] This, the usual title, should be 'of Sebasteia' (the modern Sivas); cf. Cumont in *Studia Pontica*, ii, pp. 221-5. For the various accounts of the martyrdom, see *Bibl. hagiogr. Gr.*, p. 168.

[2] The abbreviation of μάρτυς occurs in *Mon. As. Min. ant.* iv, 95 (A.D. 1063). In l. 2, [πάγ]ου is suggested by St. Basil's phrase: ἐκέλευσε πάντας . . . πηγνυμένους ἀποθανεῖν; Migne, *P. G.*, 31, 516. For help in copying this faded text by acetylene light from a ladder I am grateful to Mr. J. R. Cullen, Director of Education in Cyprus.

[3] This may represent the Bishop of Paphos (D. 255), but more probably the famous Bishop of Myra, who is depicted in 30; such a duplication of effigies (as in 10, 24; 9, 35) is not uncommon.



1. The Virgin and Child with worshippers; 12 B; IV (E.) A, B, C (W.) A, B, C



2. St. George, mounted and armed; 12 A

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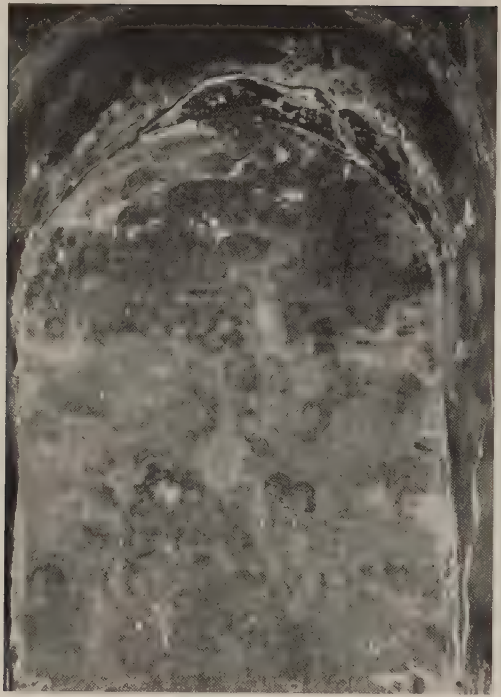
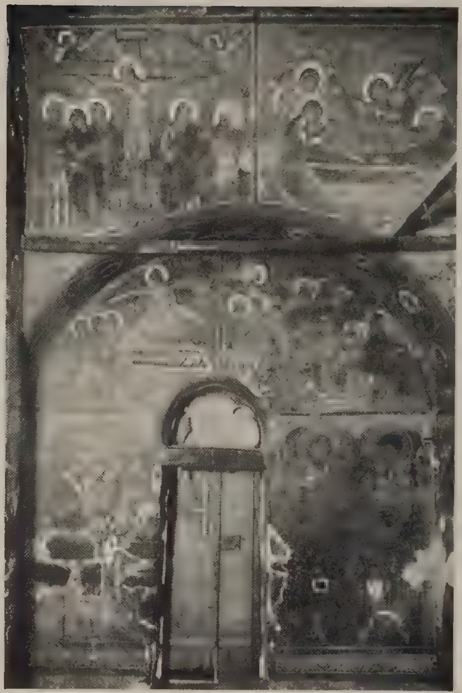
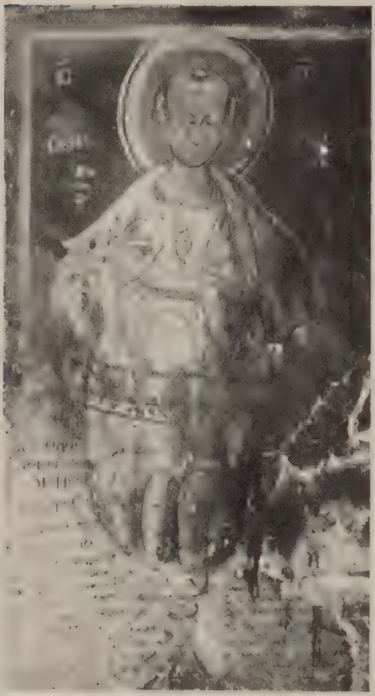


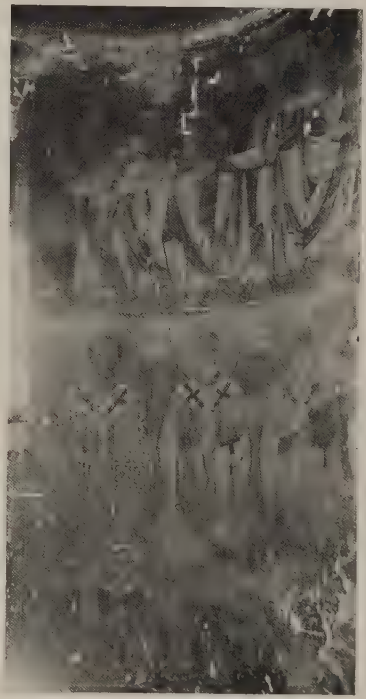
1. The Forty Martyrs; 18



2. Crucifixion; Entombment; the empty Tomb; Descent into Hell; St. Nikolaos; two SS. Theodore; 46 B, 46 A, 22 A, 23 A, 22, 23, VI



3. Christ in chalice; 28



4. The Liturgy; three Church Fathers; 30 A, 30

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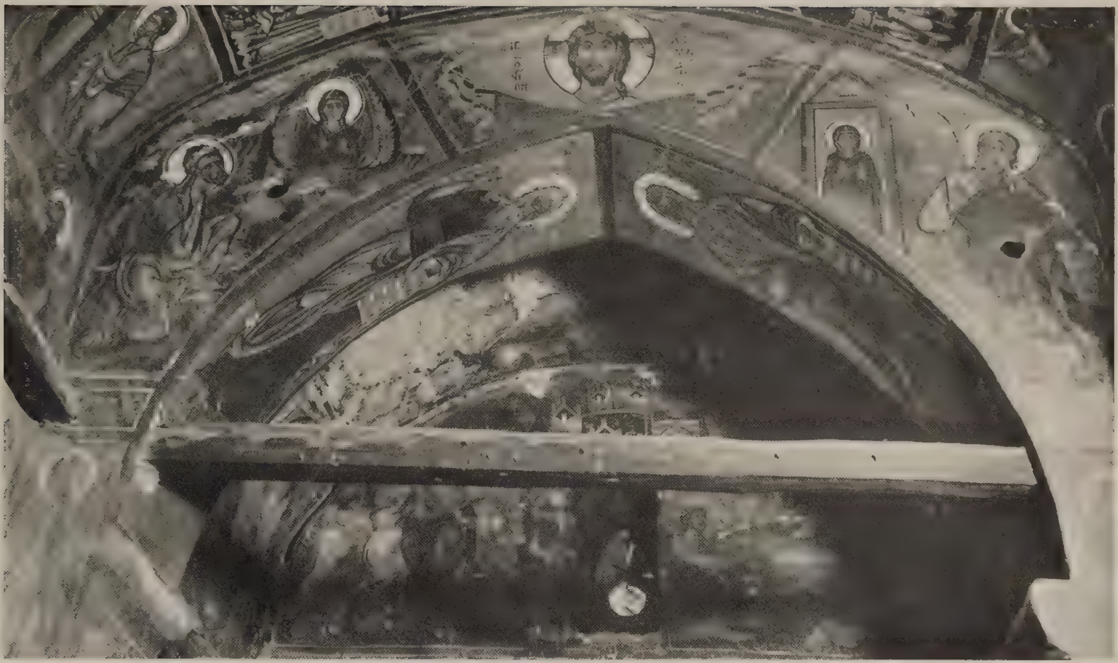
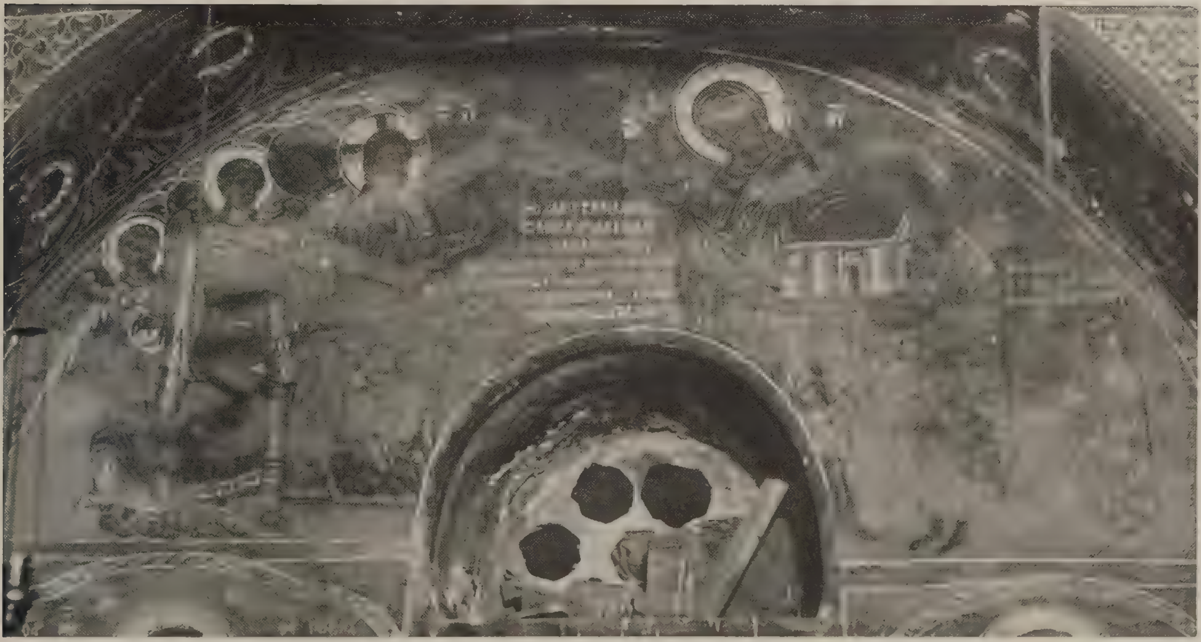


1. Moses; the Holy Napkin; Ezekiel; Isaiah; V. Behind: 44, 42 B, 42 C



2. Nicephorus magistros presents the church to Christ; 36 A, VIII

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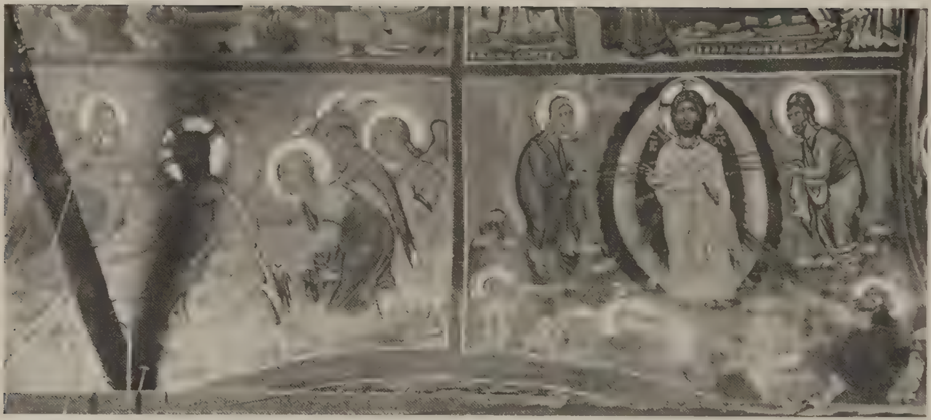
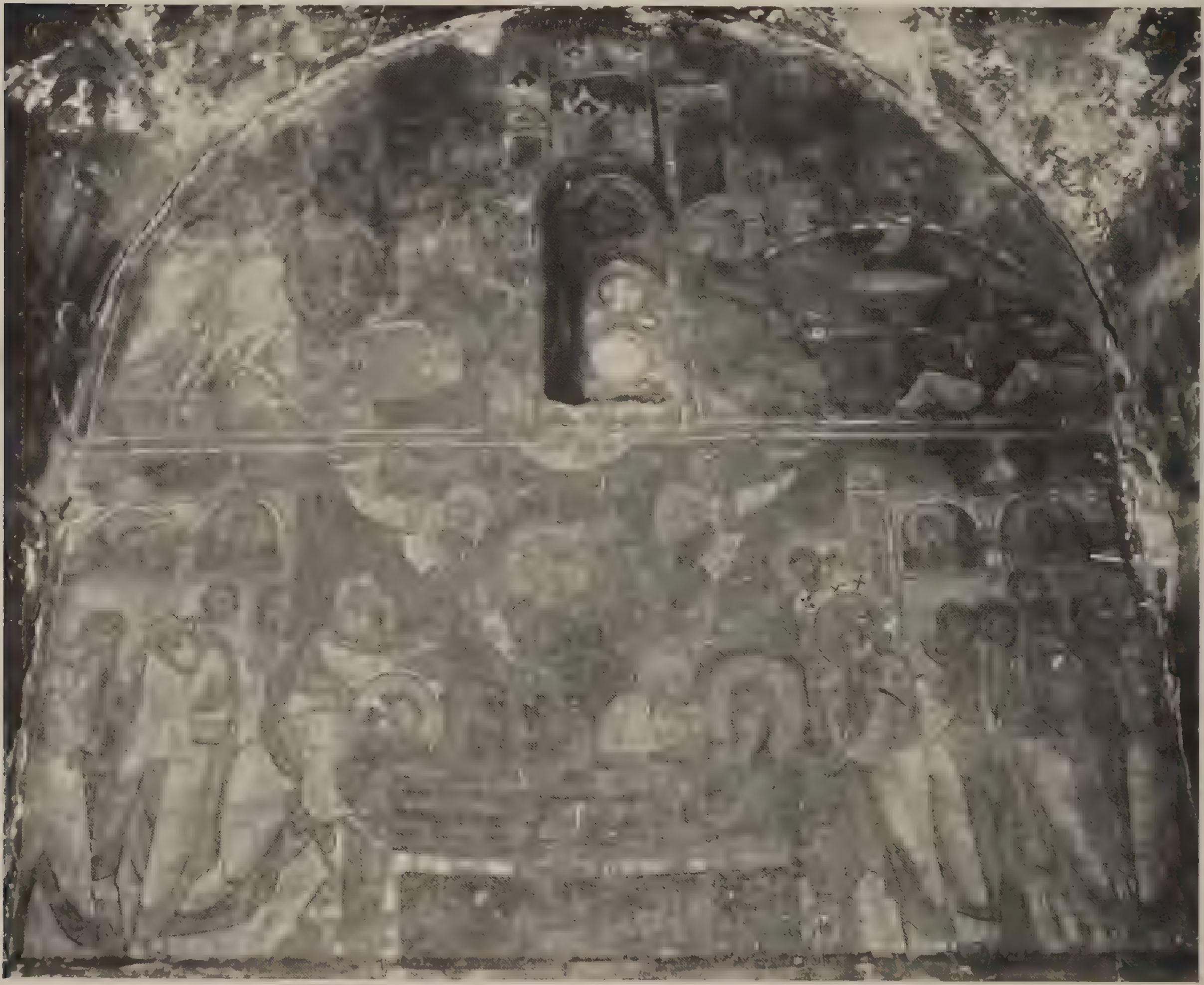


1. Baptism; Transfiguration; 45 B, 45 A



2. Triumphal Entry; Last Supper; Death of the Virgin; 42 B, 42 C, 42 A

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Michael, with wings outspread, shows it to the three women. Texts: in the tomb, *τὰ ὀθόνια, τὸ σουδάριον*; below Michael, *ἤδε, ὁ τόπος ὅπου ἔκιτο* (*Matth.* xxviii. 6; *Mark* xvi. 6).

23 (Pl. xcviii, 2.) St. Theodore 'the General' (D. 267, 270) St. Theodore 'the Recruit'.[1] Both standing in long robes, each holding a spear. Texts: *ὁ ἅγιος Θεώδορος ὁ στρατηλάτις. ὁ ἅγιος Θεώδορος ὁ τήρων.*

23 A (Pl. xcviii, 2.) The Descent into Hell. Christ, standing on planks surrounded by broken locks and keys, raises by the r. hand Adam, behind whom is Eve. Behind Christ, David and Solomon with crowns. Text: *ἡ ἀνάστασις.*

24 St. John Baptist. The Virgin facing to her l. and holding a scroll inscribed with eleven lines. Text: *ὁ ἅγιος Ι͠Ω ὁ πρόδρομος. Μή(τη)ρ Θ(εο)ῦ.*

24 A St. Anna (above the Virgin).

25 St. Tychikos (D. 256).

26 St. Romanos (Nov. 18). To the r. a niche, with effaced figure.

26 A Birth of the Virgin. Anna on a bed, sitting up and facing eastward. The infant Virgin, with halo, on the r.

27 In the small apse-recess, partly hidden by the buttress erected on the S. side: St. Jerome? Text, partly effaced: *ὁ ἅγιος Ἱερώ[νυμος].*

28 (Pl. xcviii, 3.) Christ, shown above the waist, in a chalice. Text: Ι͠C Χ͠C *ὁ Ἐμμανουήλ.* Names of bishops, priests, monks, and women (one a deceased nun, l. 10) are inscribed below in seventeenth-century script[2]:

col. 1 (uncial): Χριστοδούλου
ἀρχιερέως,
Ἰωαννικίου
ἀρχιερέως,
5 Μελετίου ἱερομονάχου,
Ἰακόβου ἱερ(έω)ς, Τεοδύλου ἱερ(έω)ς,
Κιριάκου ἱερ(έω)ς, Γεωργίου ἱερ(έω)ς,
(cursive) Θεοφυλάκτου ἱεροδιακόνου,
[Χρ]ιστοφόρου ἱερ[έω]ς, Βηώτα (μον)αχ(οῦ), Γεωργίου ἱερ(έω)ς,
10 Θεονύμφη (μον)αχ(ὴ) *κεκυμιμένοι*, (= *κεκοιμημένη*)
Μακαρίου ἀρχιερ(έω)ς, Χριστοδούλου ἀρχιερ(έω)ς,
Ἀνδροβίου Χριστίνα κὲ Βασίλλη, Χιονία,
Καλινίκου (μον)αχ(οῦ), Χαρισίου ἱερομονάχου.

. . . .

Col. 2 of 8 lines partly effaced.

28 A (Pl. cii, 1; front of arch above 48.) The Sacrifice of Abraham:
(N.) The ram and the bush.
(S.) Abraham and Isaac.

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[1] On these saints, cf. Delehaye, *Les légendes gr. des saints militaires* (1909).

[2] Dated about 1620 by the bishops Christodoulos (ll. 1–2, 11) and Makarios (l. 11); cf. Hackett, *Hist. Orth. Ch. of Cyprus*, pp. 205, 689.

Text: (in centre) ἡ θυσία τοῦ Ἀβραάμ.
(in front of angel) Ἀβραάμ, Ἀβραάμ, μὴ ἐπιβάλης τὴν χεῖρά σου ἐπὶ τὸ παιδάριον (*Gen.* xxii. 12).

29 St. Dionysios the Areopagite. St. Gregory. St. Basil.

29 A The Liturgy; the giving of the Bread (much damaged, and the figure of Christ almost effaced.). Text illegible.

30 (Pl. XCVIII, 4.) St. John Chrysostom. St. Nikolaos. St. Ignatius. Text: ὁ ἅ(γιος) Ἰῶ ὁ χρυσόστομος. ὁ ἅ(γιος) Νικόλαος. ὁ ἅ(γιος) Ἰγνάτιος ὁ θεοφώρος.

30 A (Pl. XCVIII, 4.) The Liturgy; the giving of the Wine. Above, the text: [τοῦ]τό ἐσ[τι τὸ αἷ]μά μου τὸ τῆς καινῆς [διαθήκης τὸ περὶ πολλῶν ἐκκην[όμενον] (*Mark* xiv. 24).

31 Undecorated front of the S. buttress.

32 In the apse-recess, a saint almost effaced and not identified.

33 A niche, with figure, as in 26. St. Gregory of Nyssa. Text: ὁ ἅ(γιος) Γρηγόριος ὁ Νοίσιος.

33 A Presentation of the Virgin by Saints Anna and Joachim. The view of the high-priest on l. is cut off by the buttress.

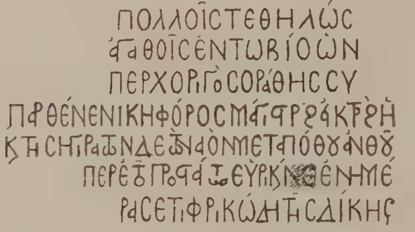
34 St. James, the Lord's brother. Text: ὁ ἅ(γιος) Ἰάκωβος ὁ ἀδελφόθεος.

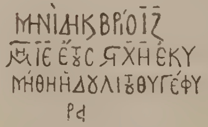
35 Christ standing, with r. hand raised in blessing and in l. hand a book inscribed as in 9.

35 A St. Joachim (matching 24 A).

36 The Virgin seated on a throne, round-backed and with foot-stool, with the Child on her lap, between the standing archangels Michael and Gabriel.

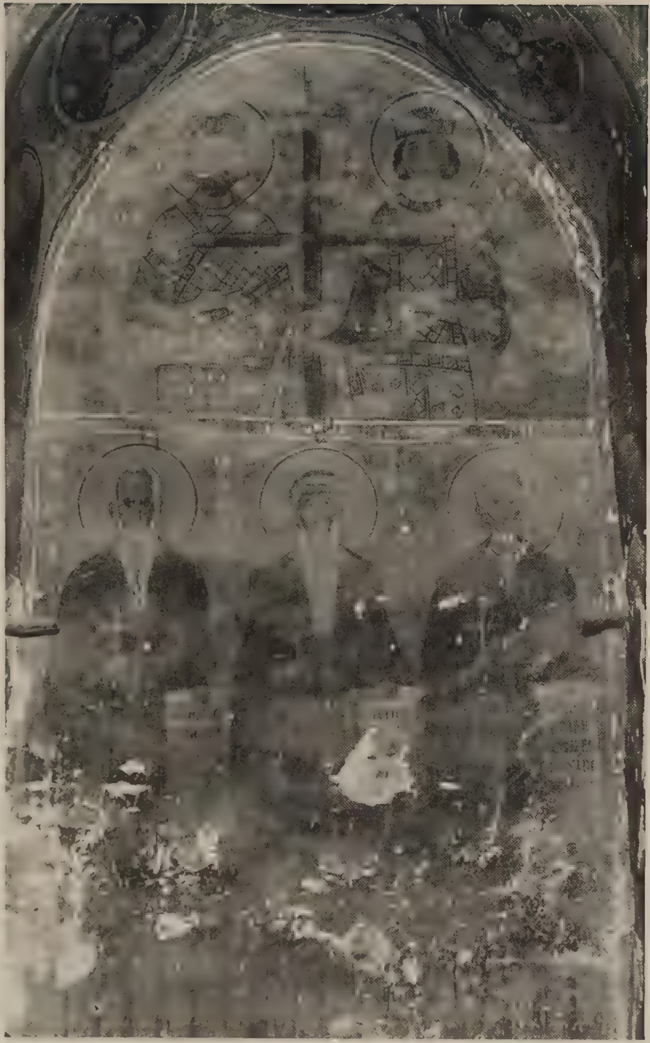
36 A (Pl. XCIX, 2.) On l., Christ seated on a throne, round-backed and with foot-stool, with host of angels standing behind and on his r. He turns to bless, with r. hand extended, the Virgin, who presents a bearded man, bare-headed and clad in a long tunic, over which is an embroidered *scaramangion* (*Byzantion* i, pp. 14, 33). The man, facing towards the throne, bears in his arms a church with vaulted roof, apse at E. end, and doors in N. and W. sides (i.e. the original church, without narthex); behind him stands a woman with hood, whose robe and mantle are richly adorned like his. Inscriptions as follows:



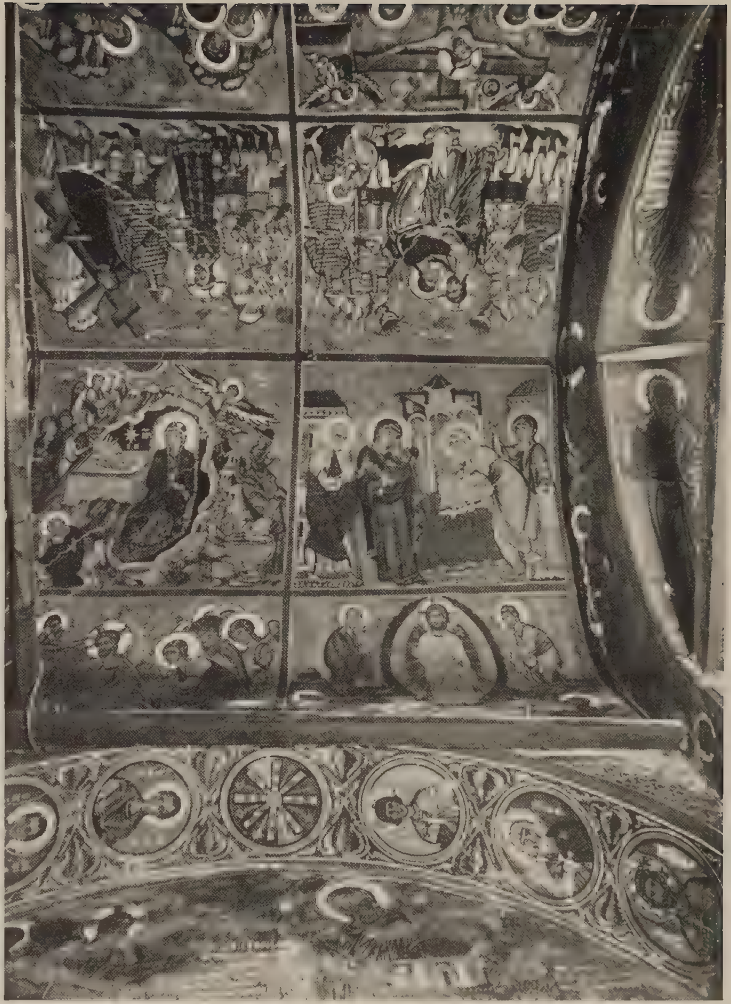


(1) in centre:

πολλοῖς τεθηλὼς
ἀγαθοῖς ἐν τῶ βίο, | ὦν-
περ χοριγὸς ὁράθης σὺ



1. SS. Constantine and Helena; three saints; 41 A. 41



2. Betrayal; Via Crucis; Nativity; Presentation; 46 D, 46 C, 45 D, 45 C.
Below: VIII

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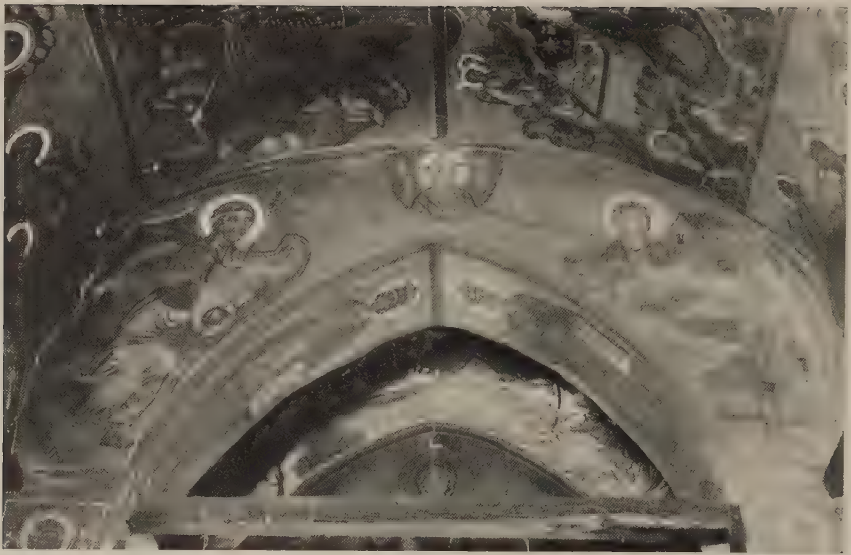
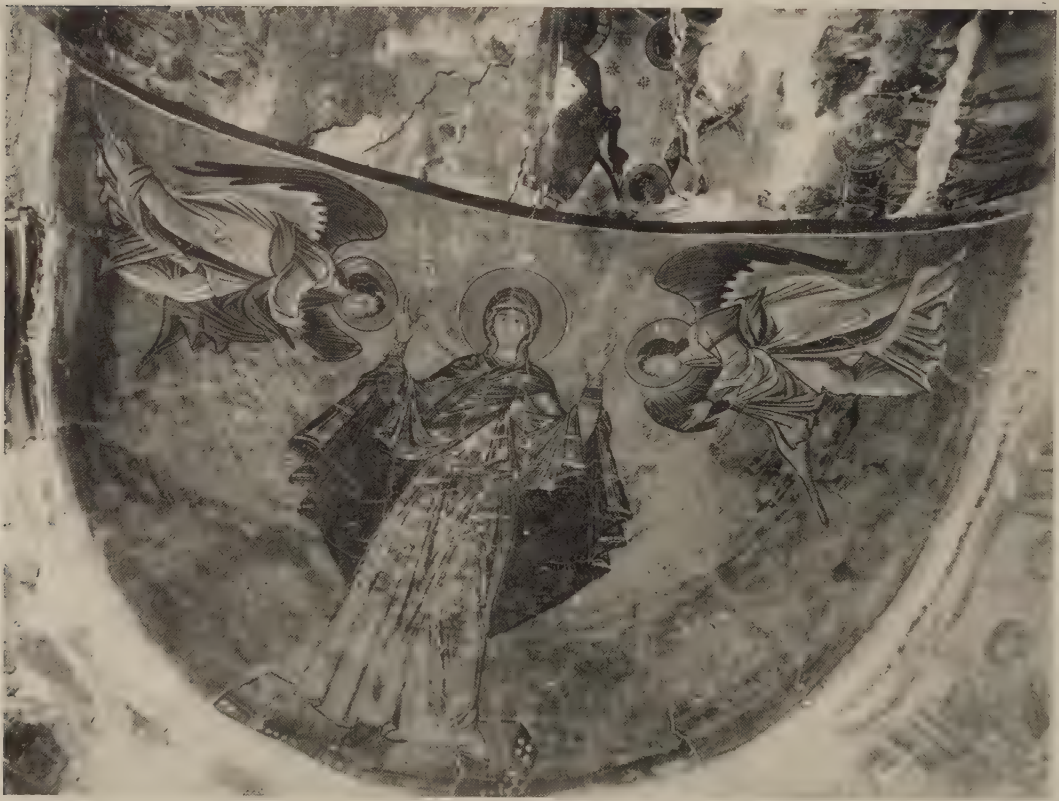


1. Annunciation; Solomon; David; VII. Behind: 28 A



2. Ascension; Virgin and Archangels; 47, 48

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Παρθένε, | Νικηφόρος μάγιστρος εἰκτρὸς ἡ-
κέτης | ἤγιρα τῶνδε τὼν (ν)αὸν μετὰ πόθου, | ἀνθ' οὗ-
περ ἐτῶ προστάτην εὐρικένε | ἐν ἡμέ-
ρα σὲ τῖ φρικώδη τῆς δίκης.

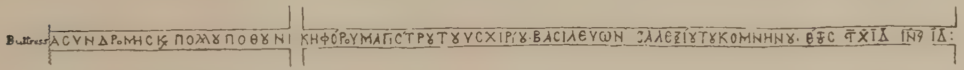
(2) over the woman's head : μηνὶ Δηκεβρίο ἰ(νδικτίωνος) ζ'
ἡμ(έρα) ιε' ἔτους ,ϛχη' ἐκυ-
μήθη ἡ δούλι τοῦ Θ(εο)ῦ Γέφυ-
ρα.

'Having been blessed in life with many good things of which thou, Virgin, wast seen to be the provider, I, Nicephorus magistros, a wretched suppliant, with devotion erected this church; in return for which I pray that I may find thee my champion in the terrible day of judgement.'

'In the month of December, indiction 7, on the 15th day in the year 6608, died the servant of God Zephyra.[1]' (= 15 Dec. 1099.)

37 St. George standing, with r. arm raised and holding a spear.
38 St. Eustathios (D. 267). (This panel covers the E. side of the added buttress.)
38 A (Above, on the side of buttress:) St. Kyrikos (matching his mother St. Ioulitta in 20 A).
39 St. Peter. (Above:) St. Memnon (Aug. 20.) (Earlier fresco below.)
40 (The added buttress plain, as in 19.) St. Thekla. Part of inscription (41 A.)
41 (Pl. CI, 1.) St. Theodosios 'the cenobiarch' (Jan. 11). St. Arsenios (July 19). St. Ephrem Syrus (Feb. 1).
41 A (Pl. CI, 1.) St. Constantine and St. Helena standing, their figures cut off below the waist, hold between them the Cross, which has a small bar across and just below the top.[2]

Below, this inscription, begun on 39 (now built over) and continued on 40:



[ἀνοικοδομήθη ὁ πάνσεπτος οὗτος ναὸς δι]ὰ συνδρομῆς κὲ πολλοῦ πόθου Νι|κηφόρου μαγίστρου τοῦ ’Υσχιρίου· βασιλεύων(το)ς Ἀλεξίου τοῦ Κομνηνοῦ ἔτους ,ϛχιδ', ἰνδ(ικτίωνος) ιδ'.

'*This sacred church was built* by the contribution and the great devotion of Nicephorus magistros the Strong[3] when Alexius Comnenus was emperor in the year 6614, indiction 14.' (= 1105/6.)

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[1] The spelling *Gephyra* is, as Professor Myres suggests, doubtless due to a confusion of Γ and Z still found in Calymnos and Astypalaia; cf. K. Dieterich, *Sprache u. Volksüberlieferungen der südlichen Sporaden* (1908), p. 79. A similar confusion occurs in two MSS. of Makhairas' *Chronicle* (ed. Dawkins, ii, p. 34) between βουργέσης and πουρζέζης.

[2] In the twelfth century before the narthex was built, this and the opposite panel (18) were next on r. and l. to the W. door. Denys de Fourna (*Manuel*, p. 273) lays down that such panels should respectively bear, as here, paintings of SS. Constantine and Helena and of the Forty Martyrs.

[3] 'Ischyrios' is formed from ἰσχυρός, as Ablabios, Akakios, Alypios, Euphemios from ἀβλαβής, ἄκακος, ἄλυπος, εὔφημος; see below, pp. 346, 350.

On the soffit of the arch above, a + and × combined within a circle, (W.) St. Sergios. St. Bacchos. (E.) St. Florus (Φλῶρος). St. Laurus (Λαῦρος).[1]

42 St. Andronikos (D. 178, 266). St. Hilarion (D. 286). St. Kyriakos (D. 267).

42 A (Pl. C, 2.) The Death of the Virgin. She lies on a bed, with head raised, and mourners to r. and l. Behind the bed stands Christ, between flying angels, carrying in his arms her soul, represented as a babe. Inscribed below: [ἰδ]ού, θανάτῳ[- c. 4]αναι τῇ Παρθέν[ω | 5]ν π[- - c. 18–κέ]ντρον ἀμβ[λῦνον ἁ]μαρτίας, | [μέγιστον] θαῦμα καὶ γέμον πάσης φρίκης: | ἀλλ᾽ οὐ κατάσχητα[ι c. 52 l. -]ου τεκοῦσα δεσπότην Λόγον. Above: ἡ κοίμησις τῆς Θ(εοτό)κου.

42 B (Pl. XCIX, 1; C, 2.) The Triumphal Entry. Text: ἡ ἐλιωφόρος.

42 C (Pl. XCIX, 1; C, 2.) The Last Supper. Christ seated on l. On the table a fish. Text: ὁ δεῖπνος.

ARCHES:

V W. side; plain.
E. side; (S.) (Pl. XCIX, 1.) Moses kneeling before the Virgin in the Burning Bush.
(Centre) The Holy Napkin. Text: τὸ ἅγιον μανδίληον.
(N.) Ezekiel seeing the Virgin as 'The Gate'.
Soffit: (S.) Isaiah, holding a scroll.
(N.) Jeremiah, holding a scroll.

VI (Pl. XCVIII, 2.) Beside central + and × combined, these heads, each within a circle:
Soffit: (E.) A. St. Eustratios (Dec. 13).
B. St. Auxentios.
C. St. Eugenios.
D. St. Mardarios.
(W.) A. St. Menas (D. 267).
B. St. Victor (Nov. 11).
C. St. Vincent.
D. St. Stephanites.[2]

VII W. side; (N.) (Pl. CII. 1.) The Annunciation: the archangel Gabriel, with r. hand outstretched.
(Centre) The Ancient of Days. Text: ὁ παλεὸς τῶν ἡμερῶν.
(S.) The Virgin reclining in front of a three-storeyed house; a ray extending down to her from the central medallion.
Soffit: (N.) Solomon, beardless, crowned and holding in his l. hand an inscribed scroll.
(S.) David, bearded, crowned and holding in his l. hand an inscribed scroll.

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[1] SS. Florus and Laurus (Aug. 18) were martyred together.

[2] No 'Stephanites' is mentioned in *Bibl. hagiogr. Gr.* The other seven saints are grouped by Denys de Fourna (*Manuel*, p. 278) among the *anargyroi*, i.e. healers without expectation of reward. On the four saints (E.) A.–D., see Migne, *P. G.*, 116, 467 f.

VIII (Pl. ci, 2.) Beside central + and × combined, these heads, each within a circle:
Soffit; (E.) A. St. Kosmas.
B. St. Damianos.
C. St. Panteleemon.
D. St. Hermolaos.[1]
(W.) A. St. Thalaleos. (Read 'Thalelaios; May 20.)
B. St. Gourias.
C. St. Samonas.
D. St. Ambibos. (Read 'Abibos'.)

Vault:

For 43, see above (p. 339).

44 In centre, within a circle, the Throne with Cross, Book, and Dove; from it descend rays toward the heads of the Apostles, who are seated on both sides.

45 B. (Pl. c, 1.) The Baptism. Text: *ἡ βάπτησις.*
A. (Pl. c, 1.) The Transfiguration. Text: *ἡ μεταμόρφοσις.*
D. (Pl. ci, 2.) The Nativity. Text: *ἡ Ἰ(ησοῦ) Χ(ριστ)οῦ γένησις.*
C. (Pl. ci, 2.) The Presentation; Joachim carrying the two pigeons and Anna an inscribed scroll. Text: *ἡ ἡποπαντή.* (= *ὑπαπαντή.*)

46 B. (Pl. xcviii, 2.) The Crucifixion. Text: *ἡ σταύροσις.*
A. (Pl. xcviii, 2.) The Entombment. Text: *ὁ ἐνταφιασμός.*
D. (Pl. ci, 2.) The Betrayal. Text: *ἡ προδοσία.*
C. (Pl. ci, 2.) The Via Crucis. Text: *ἐρχόμενος ἐπὶ σταυροῦ.* (Read: *ἑλκόμενος.*)

47 (Pl. cii, 2.) The Ascension. In the centre, standing in front of a starry disc, and below, standing on each side, the Apostles. (Part of disc and of Christ's figure cut off by 48.)

48 (Pl. cii, 2.) The Virgin standing, with hands raised in prayer. On her r. the archangel Michael, on her l. the archangel Gabriel. Text: $\widetilde{\mathrm{MP}}$ $\widetilde{\Theta\Upsilon}$ *ἡ παντάνασσα. ὁ ἀρχ(άγγελος) Μιχ(αήλ). ὁ ἀρχ(άγγελος) Γαβριήλ.*

Among the many notable features of this church are the portraits—fourteen in all—referred to above in Section I. The founder and his wife (?) are shown in 36 a. Most interesting are the monk Barnabas and his hounds (8 a, 9 a); to him presumably we owe the beautiful fresco 8 b. The most lifelike pictures are those of Germanos and Theophilos, and that of Anastasia Saramalina: III (N.) B., III (S.) B., 13. Lastly we have the small figures of donors standing beside the saints' effigies which they contributed: 3 a, 5, 5 a, 11 a, 13 a (two), 16. Probably the man kneeling in 12 b is the Nikephoros of 12 a. The defraying of the cost of decoration by benefactors, who had themselves depicted alongside of their patron saints, was apparently undertaken only in the narthex.

W. H. Buckler.

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[1] The four saints (E.) A.–D. are *anargyroi*; D. 290. To them Denys de Fourna (*loc. cit.*) adds St. Thalelaios (May 20). On the confessors of Edessa, Gouria, Šamona and Ḥabib (Nov. 15), see *Bibl. hagiogr. Gr.*, p. 102.

IV. Historical Note

The three long inscriptions in the church at Asinou all mention a Nicephorus as author. One of them (12 A) is obviously later than the other two (36 A, 41 A), for whereas these are both found in the original church, the third is painted over the blocked-up south door leading not into the original church but into the added narthex, the word 'original' being justified by the shape of the model presented to Christ by the donor in the fresco 36 A. Furthermore, technical differences of construction point to an interval of about a century between the first building and the second. It therefore becomes impossible to identify the composer of the third inscription (12 A), described at the foot as Nicephorus Kallias, or son of Kallias, with any Nicephorus mentioned in either of the other two. Do these two, however, refer to one and the same man, and if so, is it possible to say who he was?

In the donor-picture (36 A) the seven-line iambic inscription tells us that the Nicephorus who built the church had the rank of *magistros*, and had been 'blessed in life with many good things'. Above the woman standing behind him is the brief notice that she died on December 15, 1099. On the same south wall, under the picture of Saints Constantine and Helena (41 A), comes the second inscription, a prose fragment. The beginning has been covered up by a buttress, but the end states that the money, presumably for the whole church, had been provided in 1106, during the reign of Alexius Comnenus, by 'Nicephoros (the) magistros, (called) the Yschirios'. Υ and I are so frequently interchanged in Byzantine Greek that there is no difficulty in taking this as equivalent to Ischyrios, and seeing in this *-ios* form a nickname derived from *ἰσχυρός*, 'strong', just as we find Joannicios, Strategios, Ablabios, Acacios and Alypios constructed from well-known words. If then *τοῦ Ὑσχιρίου* merely denotes a personal characteristic, we must not give it undue weight in considering what the name and identity of this Nicephorus were.

The fact that the rank of *magistros*, fourth in the list of honours known to the Byzantines, and inferior only to Caesar, Nobilissimus, and Curopalates,[1] is assigned to Nicephorus in both these earlier inscriptions, makes it *prima facie* likely that they both refer to the same man. Who then was he?

Here we get a sidelight from the inscription 12 A, the large one in the narthex. We learn that the church belonged to the monastery *τῶν Φορβίων*, and the word at once reminds us of a distinguished general in the time of Alexius I, one 'noble in hand and mind',[2] the Constantine Catacalo of Bryennius (iv, 7 and 9), called Euphorbenus by Anna Comnena, but Phorbenus by Zonaras (xviii, 22), and by Prodromus in the heading of a quintet of poems to which we shall return later.[1] We may remark that Anna calls this man by all three names, Constantine Euphorbenus Catacalo, in *Alex.*, x, 2, p. 274, and 6, p. 287, and in xiii, 10, pp. 402, 403; in xiv, 1, p. 419 she writes of him as Constantine ὁ Εὐφορβηνὸς ὁ τὴν προσηγορίαν Κατακαλών. But he is Constantine Catacalo in x, 3, p. 274; Catacalo alone in i, 5, p. 12 (cf. Bryennius iv, 7 and 9), x, 3, p. 276 and 4, p. 279, and xiii, 10, p. 403; Constantine Euphorbenus in x, 3, p. 276, xi, 9, p. 334 and xiii, 9, p. 400; and Euphorbenus alone in xiii, 10, p. 403.

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[1] J. B. Bury. *Impl. administrative system in the ninth century*, Brit. Acad. Suppl. papers I. See also the Byzantine *Ranglisten* published by Benesević, *Byz. neugr. Jbb.* v, 1927, p. 114.

[2] *Alex.*, xiii, 9, p. 400.

The Constantine Catacalo who has left us three seals, published by G. Schlumberger,[2] is almost certainly the same general, for on one seal he is called *nobilissimus*, and the *Alexiad* tells us that Constantine Euphorbenus Catacalo received such an honour from Alexius I for success in the Coman War of 1094–5 (x, 3, p. 274), and on another we find the figure of St. Spyridon, bishop of Tremithus and famous throughout all Cyprus, his daughter Eirene being indeed depicted in this very church (14). We learn from Anna Comnena (xi, 9, p. 334) that this same Constantine Euphorbenus (Catacalo), clearly one of her father's favourite generals, was Duke of Cyprus in 1103.[3] He seems to have held this high post in an interval between the two tenures of office of Eumathius Philocales, who comes into her history as duke in 1099 (xi, 7, p. 329, probably also xi, 10, p. 336) and again in 1111–12 (xiv, 2). Anna's chronology, especially in the story of the Pisan fleet in xi, 10, is notoriously difficult,[4] but if the dates just suggested are correct, we may assume that Constantine Euphorbenus Catacalo, having taken up (ἀναδεξάμενος) the rule over Cyprus by 1103, held it till he was summoned away by Alexius I to take part in the second campaign against Bohemund, beginning in the autumn of 1107.

But to us the most interesting thing about this Cyprus magnate is the fact, told us in *Alex.*, x, 3, p. 276, that his son, who fought under him in the Coman War of 1094–5, was called Nicephorus, and was afterwards married to the Emperor's second daughter Maria. His admiring sister-in-law Anna Comnena praises him as a 'jewel of nature' for four things: his military prowess, his riding worthy of a Norman, his piety towards God, and his kindness towards men. Zonaras (xviii, 24) says that Alexius I made this son-in-law *panhypersebastos*. What more natural than that he should have been first a *magistros*, and that the son of the local duke should have shown his piety by building a church on the family estates, or that a famous rider should have owned a spot known as The Pasture? Horsemanship was, as it were, traditional in Cyprus. Anna Comnena (ix, 2, p. 249) heaps scorn on the Cypriote Rhapsomates, the rebel of 1092, because he could not ride, and when he did venture to mount 'he suffered confusion and shaking'. The money not used in 1112 for bribing king Baldwin was spent by Eumathius Philocales (predecessor and successor, as we have seen, in the dukedom, to Constantine Euphorbenus Catacalo) on 'horses of noble race from Damascus and Edessa and Arabia itself' (xiv, 2, p. 429). Even in this church the third inscription (12 A) already mentioned, dating probably from the thirteenth century, begins with the words 'tamer of horses', an attribute claimed for himself by 'Nicephorus son of (?) Kallias', who here 'in this monastery of the Phorbia' put up the existing fine picture of a mounted St. George.

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[1] Migne, *P. G.*, 133, col. 1075.

[2] *Sigillographie byzantine*, p. 633.

[3] See Chalandon, *Alexis I^{er} Comnène*, p. 234.

[4] Chalandon, *op. cit.*, pp. 208–9.

This later Nicephorus was probably an ordinary civilian, and so recorded his family name; in the case of the *magistros*, son of the ruling duke, this was no more necessary than in that of our own Prince of Wales, 'Nicephorus magistros' being a fair parallel to 'Edward P.' Bury[1] gives a list down to the end of the reign of Constantine Porphyrogenitus of *magistroi* mentioned by Byzantine historians. Scrutiny of his references shows that the various names, comprising three Peters, two Manuels and three Stephens, afford eighteen instances where only one appellation, in sixteen cases clearly baptismal, is given, such as Peter the *magistros*, Theophanes the *patricios* and *magistros*, and so on. On the other hand there are only seven cases where both Christian name and family name are recorded (two of them being Romanos Saronites and Romanos Musele in *Cont. Th.*, p. 443, where it was obviously necessary to distinguish between the two men); two cases where a second name is added to the baptismal one as an ἐπωνυμία, and one where the addition is prefaced by the words ὁ λεγόμενος, i.e. John Curcuas in *Cont. Th.*, p. 443, l. 7. Among the eighteen instances of the first class, two are somewhat exceptional. The brother-in-law of the Empress Theodora is 'Arsaber the then patricios, and afterwards also magistros,'[2] and one general is described as the *magistros* Catacalo; Arsaber is probably not a baptismal name, and Catacalo is certainly a family one. In the case of one of the second class, Stylianos Zaoutzes,[3] the two names appear again in Cedrenus, but on a seal in G. Schlumberger's *Sigillographie*, p. 533, the description is Stylianos *magistros* followed only by titles received before he married his daughter to the Emperor Leo VI and became *Basileopator*. Other seals of *magistroi*, with Christian names only, belong to a Constantine (p. 532), a John (p. 529), a Polyeuctos (p. 534), a Michael, catepan of Cyprus (*ib.*), another Michael, catepan of Antioch (*ib.*), an Isaac (p. 563), and an Aaron, Duke of Edessa (p. 317). A still more relevant instance, because here as at Asinou economy of space was less urgent than on a seal, is afforded by the brief inscription Κ(ύρι)ε βοήθι τὸν δοῦλόν σου Μελήαν μάγιστρον above a horseman in a Cappadocian fresco published by Père de Jerphanion.[1]

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[1] *Op. cit.*, pp. 29-33.

[2] *Cont. Th.*, p. 175; 3.

[3] *Cont. Th.*, p. 354, 9.

In short, in literature and art alike, a baptismal name with the title of *magistros* was more often than not considered a sufficient designation, which, if the number of *magistroi* even to quite late days was usually under twelve and never higher than twenty-four, seems reasonable enough.

We may feel sure that if by 1106, the date of the second inscription, the donor (assuming him to be the Nicephorus chosen as son-in-law by Alexius I) had been already married to Maria and a *panhypersebastos*, this higher title, one of the grand names invented by this Emperor,[2] would have been duly written up on our walls. It is given to him in chap. 71 of the *Typikon* of Irene,[3] drawn up between 1118 and 1133, where the two Nicephorus sons-in-law of the Empress, who both pre-deceased her, are mentioned, not by their family names of Bryennius and Catacalo, but by their respective ranks as *Caesar* and *panhypersebastos*; the anniversaries of the deaths of both are to be celebrated with due honours in the convent of the Cecharitomene at Constantinople. Nicephorus's higher title also occurs in the heading, previously mentioned, of a poem-cycle by Prodromus 'on the marriage of the lord Alexius, son of the panhypersebastos lord Nicephorus, son of Phorbenus', or 'lord Nicephorus Phorbenus'. La Porte du Theil[4] points out in his notes that since the text of the poems is concerned with a lord Alexius, whose maternal grandmother was Irene Ducas, but who also belonged to the Comnenus house, whose father was *panhypersebastos* and whose mother was born in the purple, they can point to no other than to Alexius,[5] one of the sons of the Princess Maria and of Nicephorus, the son of Constantine Euphorbenus Catacalo. Whether we take 'Phorbenus' in the heading as referring to Constantine or to his son Nicephorus depends on how we construe the genitive τοῦ Φορβηνοῦ. The sentence of deposition in 1147 of the Patriarch Cosmas II,[6] though ambiguous, is understood by Du Cange[7] to contain a statement that Nicephorus and Maria had two sons, Alexius and Andronicus. Certainly an Andronicus Pherbenus or Phorbenus occurs in Cinnamus's History[8] as the strategus of Cilicia and the cousin (ἐξάδελφος) of the Emperor Manuel. In short, we may fairly assume that Alexius, the bridegroom of Prodromus's poems, and Andronicus the general were sons of Nicephorus the 'jewel of nature' and grandsons of Constantine Euphorbenus Catacalo, 'noble in hand and mind'.

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[1] *Mélanges de la faculté orientale*, Univ. de St. Joseph, vi (1913), p. 331, no. 33; also in *Les églises rupestres de Cappadoce*, p. 529. For the importance to the empire of this Melias, see H. Grégoire, *Byzantion* viii (1933), pp. 79 f.

[2] *Alex.*, iii, 4, p. 78.

[3] Migne, *P. G.*, 127, col. 1092.

[4] *Ibid.*, 133. coll. 1075–7.

[5] *C.I.G.* 8735 purports to have been written by him about 1140.

[6] Leo Allatius, *De eccl. occ. et or. perp. cons.*, ii, 12, p. 686.

[7] *Fam. Aug. Byz.*, pp. 177–8.

[8] v. 9 and vi. 11. Migne, *P. G.*, 133, coll. 588 and 660.

Other members of the Catacalo family, and other nobles bearing the territorial name of Euphorbenus, figure in the pages of Byzantine historians, but as none of them or their parents, so far as we know, had the baptismal name of Nicephorus, we need not enumerate them now. The whole question of Byzantine nomenclature, Christian names, family names, territorial names and nicknames, needs careful study and elucidation. Here we will only say in conclusion that in the Nicephorus of the two earlier Asinou inscriptions (36 A and 41 A) we have surely strong reason to see the *preux chevalier* of Anna Comnena's story, Nicephorus of the Catacalo family, probably like his father called Phorbenus, but not needing to record the fact in the locality of Phorbia itself, and known among his contemporaries as 'the Strong', a man, as Anna proudly says,[1] who 'knew in truth how to brandish a spear and defend himself with a shield'.

GEORGINA BUCKLER.

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[1] *Alex.*, x, 3, p. 276.

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